

7. HIGHER EDUCATION

7.1. Introduction

The tertiary sector includes, first and foremost, the various different types of institution of higher education and, to a limited extent, establishments outside the higher education system. Thus, in addition to institutions of higher education, some Länder also have *Berufsakademien*, which offer an alternative to higher education in the form of courses qualifying to practise a profession for those who have completed the upper level of secondary education and gained a higher education entrance qualification. The *Fachschulen* and the *Fachakademien* in Bayern are also part of the tertiary sector.

General objectives

Teaching and study are to prepare students for a profession in a certain sphere of activity, imparting to them the particular knowledge, skills and methods required in a way appropriate to each course so as to enable them to perform scientific or artistic work and to act responsibly in a free, democratic and social state governed by the rule of law. These purposes of study are common to all types of higher education institution.

Thus, the mandate bestowed by the legislator, in line with the traditional principle of the unity of teaching and research, is to provide professional training to students in a way that directly involves scientific and academic research and artistic development. Whilst the unity of teaching and research applies to all institutions of higher education, a distinction may be drawn between the functions of UNIVERSITIES and other types of institutions of higher education in that university education is traditionally closely linked to basic and theoretical research.

COLLEGES OF ART AND MUSIC prepare students for artistic professions and teaching of music and art. Teaching and studying are closely related to the other functions of the colleges, i.e. to promote art through the development of artistic forms and means of expression and through the free pursuit of art.

The characteristic features of the design of the courses of study and the organisation of teaching and studying at *FACHHOCHSCHULEN* are the particular emphasis on practical application and the closer links with the requirements of the professional world. The semesters spent outside the institutions to gain practical experience, known as *Praxissemester*, are a vital feature. The teaching staff and course contents at *Fachhochschulen* are linked with applied research and development projects, which are characteristic of this type of institution.

As part of training at state or state-recognised *Berufsakademien* (professional academies) students receive academic training at *Studienakademien* (study institutions) and, at the same time, practical career training in a training establishment.

The aim of the continuing vocational training provided at *Fachschulen* is to enable skilled workers usually with job experience to take on management functions in firms, enterprises, administrations and institutions, or to independently perform responsible tasks.

Specific legislative framework

The legal basis of higher education in Germany is provided by the legislation on higher education of the Länder (*Hochschulgesetze* – R126, R128, R131, R133, R135–136, R139, R141, R143, R145–146, R148, R149–152, R154, R157, R159, R162), as well as the legislation regarding colleges of art and music (R146, R150–151) and the legislation regarding *Fachhochschulen* (R152) of the Länder as far as these types of institution are not included in the general Higher Education Acts. As part of concurrent legislation (Art. 72 of the Basic Law – R1), the Federation is responsible for the fields of admission to higher education institutions and degrees from higher education institutions. However, the Länder have been granted the power to enact their own provisions in deviation from the relevant federal laws. The Higher Education Acts of the Länder describe the general objectives of higher education institutions as well as the general principles underlying the system of higher education, study, teaching and research, admission, membership and participation, as well as the staff of institutions of higher education. As a rule, the regulations apply to all institutions of higher education, including privately-maintained establishments.

Training at *Berufsakademien* is governed by the *Berufsakademie* laws (R138, R140, R144, R153, R156, R161, R164) in force in the individual Länder and by the *Ausbildungsordnungen* (training regulations) and *Prüfungsordnungen* (examination regulations) of the relevant Ministry of Science or the *Berufsakademie* itself.

Continuing vocational education at *Fachschulen* is regulated by education legislation (R84, R86, R88, R90, R92, R95, R97, R99, R101–102, R104, R106, R112, R114–115, R117) and by the training regulations and examination regulations of the individual Länder in particular.

7.2. Types of Higher Education Institutions

As per the 2016 summer semester, Germany had a total of 398 state-maintained and state-recognised institutions of higher education, which are of the following types:

- Universities and equivalent institutions of higher education (*Technische Hochschulen/Technische Universitäten, Pädagogische Hochschulen, theological colleges et al*)
- Colleges of art and music
- *Fachhochschulen (Hochschulen für angewandte Wissenschaften)*

In addition, Germany's tertiary sector also includes either state-run or state-recognised *Berufsakademien* in some Länder. The *Fachschulen* and the *Fachakademien* in Bayern are also part of the tertiary sector.

Universities and equivalent institutions of higher education

In addition to the traditional universities, the *Technische Hochschulen* or *Technische Universitäten*, that specialise in natural and engineering sciences also enjoy university status. Also equivalent to universities are establishments that only offer a limited range of courses of study, such as theological colleges and *Pädagogische Hochschulen*. The latter, which still exist only in Baden-Württemberg, have been incorporated into universities in the other Länder or expanded into institutions offering a wider range of courses.

What these institutions have in common, as a rule, is the right to award the *Doktorgrad (Promotionsrecht)*. Academic and basic scientific research and the training of the next generation of academics are also distinctive features of universities and equivalent institutions of higher education.

Colleges of art and music

Colleges of art and music offer courses of studies in the visual, design and performing arts as well as in the area of film, television and media, and in various music subjects; both, in some cases, also teach the appertaining theoretical disciplines (fine arts, art history and art pedagogy, musicology, history and teaching of music, media and communication studies as well as, more recently, the area of the digital media). Some colleges teach the entire gamut of artistic subjects, others only certain branches of study.

Fachhochschulen

The *Fachhochschulen* were integrated in the system of higher education in the Federal Republic of Germany as a new type of institution in accordance with an agreement between the Länder from 1968. They fulfil their own specific educational function, characterised by an application-oriented bias in teaching and research, a usually integrated semester of practical training, and professors, who have, in addition to their academic qualifications, gained professional experience outside the field of higher education.

In some Länder *Fachhochschulen* (universities of applied sciences) are called *Hochschulen für angewandte Wissenschaften* (higher education institutions of applied sciences). In Bayern some *Hochschulen für angewandte Wissenschaften* are entitled to call themselves *Technische Hochschule* (technical higher education institution).

A relatively high proportion of them, more than 50 per cent of 229 *Fachhochschulen*, are not state-maintained, but are to a large extent subject to the same legal provisions as state *Fachhochschulen*. They vary considerably in terms of size, number of students and number of courses of studies, and consequently the individual *Fachhochschulen* have a specific regional character or particular area of specialisation. A special role is played by the 29 *Verwaltungsfachhochschulen (Fachhochschulen for public administration)*, which train civil servants for careers in the so-called higher level of the civil service. They are maintained by the Federation or by a Land. Their students have revocable civil servant status.

Establishments outside the higher education system – Berufsakademien, Fachschulen

Berufsakademien (professional academies) form part of the tertiary sector and combine academic training at a *Studienakademie* (study institution) with practical professional training in a training establishment, thus constituting a *duales System* (dual system). The companies bear the costs of on-the-job training and pay the students a wage, which is also received during the theoretical part of the training at the study institution. *Berufsakademien* were first set up in 1974 in Baden-Württemberg as part of a pilot project and are now to be found in some Länder as either state-run or state-recognised institutions.

As an alternative to the dual courses of the *Berufsakademien*, several *Fachhochschulen* have developed so-called dual courses of study.

Fachschulen are institutions of continuing vocational education and upgrading training in the tertiary sector that, as a rule, require the completion of relevant vocational education and training in a recognised occupation requiring formal training and subsequent employment. *Fachschulen* exist in the following fields:

- agricultural economy
- design
- technology
- business
- social work

Whether on a full or part-time basis, they lead to a professional continuing education qualification in accordance with Land legislation. In addition, *Fachschulen* can offer follow-up and further courses, as well as career development programmes. Those who complete training at the *Fachschulen* act as intermediaries between the functional sphere of graduates and that of skilled workers in a recognised occupation requiring formal training.

7.3. First Cycle Programmes

In a system of consecutive qualifications, the Bachelor is the first higher education qualification providing qualification for a profession and the standard qualification for study undertaken at a higher education institution. In the 2016 summer semester, universities and equivalent institutions of higher education, *Fachhochschulen* and colleges of art and music collectively offered 8,526 different courses of study leading to the Bachelor's degree.

The following designations are used for Bachelor's degrees:

- Bachelor of Arts (B.A.)
- Bachelor of Science (B.Sc.)
- Bachelor of Engineering (B.Eng.)
- Bachelor of Laws (LL.B.)

The following designations are used for Bachelor's degrees at colleges of art and music:

- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Arts (B.A.)
- Bachelor of Music (B.Mus.)

The following designation is used for Bachelor's degrees acquired in the course of initial teacher training:

- Bachelor of Education (B.Ed.)

7.3.1. Bachelor

Branches of Study

Branches of study, specialisation at universities and equivalent institutions of higher education

Universities and equivalent institutions of higher education usually offer a range of subjects including languages, the humanities and sport, law, economics and social sciences, natural sciences, medicine, agronomy, forestry and nutritional science and engineering sciences.

The most common branches of study in the named subject categories are:

Languages and the humanities, sport

Philosophy

Theology

Archaeology and study of antiquity

History

Art studies/art history

Musicology/music history

Theatre studies/dramatic art

European and non-European languages and literature

Education

Psychology

Library science/documentation science/media studies

Sport

Law, economics and social sciences

Law

Social sciences

Administrative sciences

Economics

Political science

Mathematics, natural sciences

Mathematics

Physics

Computer science

Chemistry

Biochemistry

Biology

Earth science

Pharmacy

Medicine

Human medicine

Dentistry

Veterinary medicine

Agronomy, forestry, nutritional science

Agronomy

Forestry
Nutritional science
Engineering sciences
Architecture
Civil engineering
Geodesy
Electrical engineering
Mechanical engineering
Chemical engineering
Traffic and transport studies
Environmental technology
Mining

Study courses in the disciplines law, medicine, dentistry, veterinary medicine, pharmacy and food chemistry do not, as a rule, end with a Bachelor examination but with a *Staatsprüfung* (state examination). More details on courses of studies which lead to a *Staatsprüfung* may be found in chapter 7.5. Some teacher-training courses also end with a *Staatsprüfung*. More information on the training of teaching staff may be found in chapter 9.2.

The figures vary from institution to institution, but universities and equivalent institutions of higher education in the 2016 summer semester offered a total of 4,571 different courses in these subject categories which lead to a Bachelor's degree. An overview of the courses that lead to a first qualification for entry into a profession is provided in publications such as *Studien- und Berufswahl* (Choice of Studies and Profession, published annually by the Länder of the Federal Republic of Germany as represented by the Land Hessen and the Federal Employment Agency). The publication is available on the Internet at www.studienwahl.de/en/index.htm. An overview of the range of courses on offer is published each semester by the German Rectors' Conference (*Hochschulrektorenkonferenz – HRK*). It is available on the Internet at www.higher-education-compass.de.

International study courses, which have a special foreign focus, are also on offer within the named branches of study. The main subject focus in these courses of study at universities and equivalent institutions of higher education lies in the area of language and the humanities, followed by law, economics, social sciences and engineering sciences. More detailed information on international study courses is available in chapter 13.5.

A *Regelstudienzeit* (standard period of study) is fixed in the *Prüfungsordnungen* (examination regulations) for each course of study. The regulations state the time in which a course of study with the intended examination can be completed. The total standard period of study for consecutive study courses leading to a Bachelor's or Master's degree is a maximum of five years. The standard period of study for Bachelor's study courses can be a six, seven or eight semesters. At universities and equivalent institutions of higher education, the standard period of study for Bachelor's study courses is generally six semesters.

Branches of study, specialisation at colleges of art and music

Colleges of art and music in the 2016 summer semester offered a total of 426 different courses which lead to a Bachelor's degree. The courses of studies vary widely from college to college. In general, they may be divided up along the following lines:

- music with such studies as training for solo or orchestra musicians in various instruments, training in singing, conducting, composition or church music, music teaching at general education schools, music education and technical musical professions (e.g. sound engineering)
- visual arts with such studies as art, design, photography
- performing arts with such studies as drama, opera, musicals, dancing, directing and film-making
- applied art with courses of studies in architecture, design or the media
- art education and art therapy as well as courses in art teaching for school teachers
- the media with such courses as film, television, media studies, media art, animation and media management

In core arts subjects at colleges of art and music consecutive Bachelor's and Master's study courses may also be developed with a total standard study period of six years. In most cases the standard period of study for Bachelor's study courses at colleges of art and music is eight semesters.

Branches of study, specialisation at *Fachhochschulen*

Fachhochschulen in the 2016 summer semester offered a total of 3,529 different courses which lead to a Bachelor's degree. Above all, study courses in the following areas of study are taught in the *Fachhochschulen*:

- Agronomy, forestry, nutritional science
- Engineering sciences
- Economics/economic law
- Social work
- Public administration, administration of justice
- Information technology, computer science, mathematics
- Natural sciences
- Design
- Information and communication studies
- Nursing and management in the public health system

There are also international study courses within the named areas of study. Most of these courses of study at *Fachhochschulen* are based in the area of law, economics and social sciences, followed by engineering sciences. More detailed information on international study courses is available in chapter 13.5.

A *Regelstudienzeit* (standard period of study) is fixed in the *Prüfungsordnung* (examination regulations) for each course of study. The regulations state the time within which a course of study with the intended examination can be completed. For the total standard period of study in consecutive Bachelor's and Master's courses of study at *Fachhochschulen*, the description of the standard period of study at universities and equivalent institutions of higher education applies. At *Fachhochschulen*

the standard period of study for Bachelor's study courses is generally six or seven semesters including semesters of practical training.

Branches of study and specialisation at establishments outside the higher education system – *Berufsakademien, Fachschulen*

Courses offered at the *Berufsakademien* include, in particular, business, technology and social work. The length of study at the *BERUFSAKADEMIEN* is generally stipulated by the respective Land law as three years. As far as state-run *Berufsakademien* are concerned, it is in most cases the relevant Land ministry that determines the number of hours of attendance during the semester, adopting study and examination regulations for each course. Courses at *Berufsakademien* leading to the Bachelor's degree are to be accredited. The length of study is a minimum of three years.

Fachschulen offering two-year courses are available in around 150 different specialisations in the fields of agricultural economy, design, technology, business and social work and lead up to a state-administered examination. The most strongly represented subjects include electrical engineering, mechanical engineering, construction engineering, chemical engineering and business management. There are also other two-year *Fachschulen* for domestic science, *Fachschulen* for care, assistance and education for the handicapped (*Heilerziehungspflege*), as well as one-year *Fachschulen* (e.g. state-certified managers for the subject area agriculture). State-certified youth and child care workers, *Erzieher*, are trained over a two to three-year period at *Fachschulen* for youth and community work to enter the socio-educational field of child and youth welfare services, i.e. day-care centres for children, *Horte* and youth welfare organisations.

Admission requirements

Admission requirements to universities and equivalent institutions of higher education

Higher education entrance qualification

Admission to any course of study at universities and equivalent higher education institutions generally requires the *Allgemeine Hochschulreife* or the *Fachgebundene Hochschulreife*. The former entitles school-leavers to study at any institution of higher education in any subject or field, while the latter permits entry only into specified courses of studies.

The *Allgemeine Hochschulreife* or *Fachgebundene Hochschulreife* is obtained after 12 or 13 ascending school years on completion of the *gymnasiale Oberstufe* (see chapter 6.7.) or certain courses of vocational education at upper secondary level (see chapter 6.10.).

The *Allgemeine Hochschulreife* can also be acquired at *Abendgymnasien*, i.e. evening schools for working people, and *Kollegs*, i.e. full-time schools for those who have completed vocational education and training. Other options are the *Abitur* examination for non-pupils or employed persons of particular intellectual ability.

In addition to the *Hochschulreife*, in certain subjects the applicant's aptitude is determined through a separate test procedure. This applies particularly to sport and the arts.

In March 2009, the Länder resolved standard preconditions under which vocationally qualified applicants without a higher education entrance qualification obtained at school are granted the right of entry to higher education (*Hochschulzugang für beruflich qualifizierte Bewerber ohne schulische Hochschulzugangsberechtigung*). The resolution opens admission to general higher education to master craftsmen, technicians, people with vocational qualifications in a commercial or financial occupation and people with similar qualifications, and defines the conditions under which vocationally qualified applicants without career advancement training are eligible to enter higher education restricted to a specified field of study following the successful completion of vocational training and three years of experience in their occupation.

Applicants who do not have German higher education entrance qualifications have to submit a secondary school certificate that qualifies them to attend higher education in their country of origin. If necessary, they also have to provide proof that they have passed an entrance examination at a university in their native country or proof of enrolment at the university. Applicants from some countries of origin must, moreover, provide proof that they have successfully completed some course modules at a higher education institution in the country of origin or, following attendance at a one-year core course, must take an assessment test at a *Studienkolleg*. Also, foreign applicants for study places must prove that they have a sufficient command of the German language. In accordance with the regulatory framework on German language examinations for studying at German institutions of higher education (RO-DT) the institutions of higher education specify the language requirements that are necessary for the course on the basis of an average applicant for each study programme in each individual case, whereby the role of the German language for a successful course of studies takes priority. Proof of a sufficient command of the German language during enrolment in the chosen study programme can be provided by the German Language Diploma of the Standing Conference – Level II (*Deutsches Sprachdiplom der Kultusministerkonferenz – Zweite Stufe – DSD II*), the German Language Proficiency Examination for Admission to Higher Education for Foreign Applicants (*Deutsche Sprachprüfung für den Hochschulzugang ausländischer Studienbewerber – DSH*) which is taken at the institution of higher education in Germany itself, the Test of German as a Foreign Language for foreign applicants (*Test Deutsch als Fremdsprache für ausländische Studienbewerber – Test-DaF*) or by taking the German language examination as part of the *Feststellungsprüfung* (assessment test) at a *Studienkolleg*. Different levels of ability to study in the language of instruction can be proven through these examinations.

Foreign applicants for study places from countries where there is an *Akademische Prüfstelle* (APS) will only be admitted to a German institution of higher education if they can submit a certificate of the *Akademische Prüfstelle*. The certificate of the *Akademische Prüfstelle* certifies

- the authenticity and plausibility of the documents submitted
- fulfilment of the criteria for the commencement of a first study course as set forth in the assessment proposals of the Standing Conference,
- the required German language proficiency, where appropriate.

In December 2015, the Standing Conference passed a resolution on Access and admission to higher education for applicants unable to provide evidence of a higher

education entrance qualification obtained in their home country on account of their flight (*Hochschulzugang und Hochschulzulassung für Studienbewerberinnen bzw. Studienbewerber, die fluchtbedingt den Nachweis der im Heimatland erworbenen Hochschulzugangsberechtigung nicht erbringen können*). Applicants who are unable to provide the original or a certified copy of their higher education entrance qualification for either graduate or undergraduate studies obtained in their home country on account of their flight will be allowed to provide documentation in a three tier procedure depending on their refugee and legal residence status. This consists of:

- the determination of the personal premises on the basis of refugee and legal residence categories
- a plausibility check of the educational biography with regard to the acquisition of a higher education entrance qualification in the home country, and
- proof of the alleged higher education entrance qualification through an examination and/or assessment procedure based on quality. The procedure to be applied will be decided internally by the Länder.

The resolution also regulates the extent to which indirect proof can be provided of the higher education entrance qualification. If a higher education entrance qualification can be concluded with sufficient indirect evidence on the basis of a plausibility check, no examination and/or assessment procedure will be necessary.

In addition, the resolution contains regulations on the admission to higher education for restricted programmes and on student mobility.

In case of applicants who can prove that they were or still are prevented from taking part in a higher education admissions procedure according to the *Bewertungsvorschläge* (assessment recommendations) on account of their flight or for political reasons, admission to a *Studienkolleg* and the assessment procedure is possible on the basis of the secondary school leaving certificate provided the grade indicates an adequate qualification to commence studies in the home country. In these cases, the applicant should initially sit a specific entrance examination, an extended language test or complete a trial semester at the *Studienkolleg* or comparable institution.

Admission to higher education institutions

With the entry into force of the State Treaty of the Länder on the establishment of a joint institution for higher education admission (*Staatsvertrag der Länder über die Errichtung einer gemeinsamen Einrichtung für Hochschulzulassung*) on 1 May 2010 the Central Office for the Allocation of Study Places (*Zentralstelle für die Vergabe von Studienplätzen – ZVS*) became the Foundation for Higher Education Admission (*Stiftung für Hochschulzulassung – SfH*). The SfH is a service facility for admission to higher education institutions that can be used by the institutions of higher education and applicants alike. It supports applicants in their choice of study place and higher education institutions with the admissions procedure. Under the State Treaty it has the task, on the one hand, of carrying out the central allocation procedure for courses subject to nationwide quotas on admission. On the other hand, the Foundation for Higher Education Admission supports those higher education institutions using its services in implementing admission procedures with local admission restrictions.

Study courses with nationwide quotas

In some courses, in which the total number of applicants exceeds the number of places available at all higher education institutions, there are quotas. In the 2016/2017 winter semester there are nationwide quotas for medicine, veterinary medicine, dentistry and pharmacy. Places on these courses are awarded by the Foundation for Higher Education Admission (*Stiftung für Hochschulzulassung*) and higher education institutions on the basis of a central allocation procedure. The legal basis for this procedure is the State Treaty of the Länder on the establishment of a joint institution for higher education admission of June 2008 (R125). The State Treaty entered into force on 1 May 2010 following ratification by all Länder.

Up to 20 per cent of the available places are awarded beforehand (e.g. to foreigners from countries outside the European Union, applicants for an additional course of study, hardship cases). The criteria for the selection of applicants for the remaining places are the applicant's degree of qualification for the chosen course of study (as a rule the applicant's average mark in the *Abitur*, school-leaving examination constituting higher education entrance qualification – 20 per cent), the waiting period between acquiring the entrance qualification for the chosen course of study and applying (20 per cent) and the result of a selection procedure carried out by the institution of higher education itself (60 per cent). In their selection procedure, institutions of higher education may base their decision, alongside the degree of qualification, on additional selection criteria such as, for instance, weighted individual marks in the qualification for the chosen course of study which provide information on the applicant's capability to study a specific subject, the result of a test to determine the applicant's capability to study a specific subject, the type of vocational education and training or occupation, the result of a selection interview regarding the motivation for the chosen course of study, or a combination of these five criteria. In the selection decision, the degree of qualification for the course of study in question is of overriding importance. Details of the procedure and the applicable content criteria are laid down by the Länder.

Study courses with local restrictions on admissions

There are local restrictions on admission to just less than 50 per cent of all study courses. Each higher education institution decides whether to admit applicants in accordance with Land law. The higher education institutions can commission the Foundation for Higher Education Admission (*Stiftung für Hochschulzulassung* – SfH) to operate a service for the relevant courses of study.

In May 2012 the Foundation for Higher Education Admission launched the so-called dialogue-oriented service procedure (*Dialogorientiertes Serviceverfahren* – DoSV) as a pilot operation on the online platform www.hochschulstart.de. The procedure speeds up the allocation of study places in courses of study with local admission restrictions in a user-friendly and transparent manner. An online platform operated by the Foundation for Higher Education Admission (*Stiftung für Hochschulzulassung* – SfH) records applications from prospective students and compares them in a joint data base. The multistage procedure ensures that once an admission offer has been accepted study places at other participating higher education institutions are no longer blocked by multiple applications, and the places freed up can therefore be allocated to other students more quickly. This avoids study places remaining unfilled at the start of the semester, even though there are still applications for those

places. Since the success of the system largely depends on the participation of more higher education institutions, the Länder are working to persuade all of their higher education institutions which offer courses of study with admission restrictions to participate in the so-called “dialogue-oriented service procedure”. The Länder have therefore – while respecting the autonomy of the institutions of higher education – taken a variety of measures to achieve a higher participation of the institutions of higher education in the DoSV. In some cases, the Länder stipulate an obligatory participation. This is to be achieved through a corresponding directive or goals and performance agreements or within the scope of institutional contracts.

The SfH is reckoning with a nationwide participation of all institutions of higher education in question by the winter semester 2018/2019.

Study courses without restrictions on the number of applicants

In study courses without restrictions on the number of applicants who can be admitted, all applicants who meet the above-mentioned entrance requirements are registered at the higher education institution for the course of study of their choice without having to go through any special admission procedures. In some cases there are so-called prior notification periods at higher education institutions even for study courses without restrictions.

Admission requirements to colleges of art and music

Colleges of art and music require proof of the *Allgemeine Hochschulreife* or the *Fachgebundene Hochschulreife* (higher education entrance qualification) and artistic aptitude. In most Länder, purely artistic courses, i.e. not for prospective teachers, also admit applicants without proof of higher education entrance qualification if they show unusual artistic talent.

Admission requirements to *Fachhochschulen*

Higher education entrance qualification

The prerequisite for admission to a *Fachhochschule* is either the *Allgemeine Hochschulreife* (general higher education entrance qualification) or *Fachgebundene Hochschulreife* (higher education entrance qualification restricted to a specified field of study) on the one hand or the *Fachhochschulreife* on the other, which as a rule is acquired after twelve ascending grades at a *Fachoberschule* (see chapter 6.10.). However, the *Fachhochschulreife* can also be obtained by taking additional classes at vocational schools, e.g. *Berufsfachschulen* and *Fachschulen*. In addition, previous related practical experience is required for admission to certain courses of study. In 2004, more than half of those entering *Fachhochschulen* have a higher education entrance qualification which also entitles them to study at university.

In certain subjects (e.g. design) proof of artistic ability is required in addition to a higher education entrance qualification.

Admission to higher education institutions

Many *Fachhochschulen* restrict the number of students admitted to individual subjects due to capacity constraints. As a rule, the *Fachhochschule* decides on the allocation of study places on the basis of the average mark and waiting time, the result of a test to determine the applicant’s capability to study a specific subject or the result of a selection interview, the vocational education and training or employment of an

applicant, or weighted individual marks in the higher education entrance qualification, which provide specific information on the applicant's capability to study a specific subject. The *Fachhochschulen* can commission the Foundation for Higher Education Admission (*Stiftung für Hochschulzulassung – SfH*) to implement a service procedure for the corresponding study courses.

Admission requirements to establishments outside the higher education system – *Berufsakademien, Fachschulen*

Applicants for courses at the *Berufsakademien* require a *Hochschulreife* or a *Fachhochschulreife* (general or subject-restricted higher education entrance qualification), depending on the regulations in force in the particular Land, and a training contract with a suitable training establishment. Depending on the Land legislation, applicants with professional qualifications but without the higher education entrance qualification can take an entrance examination or the regulations governing admission to higher education institutions for employed persons will apply. Once the training contract has been concluded, applicants are registered at the study institution by the company responsible for training them.

Admission requirements for the *Fachschule* vary, depending on the department. Admission to a *Fachschule* for agricultural economy, design, technology and business generally requires

- either a qualification in a recognised occupation requiring formal training that is relevant to the objective of the respective discipline and at least one year's experience in a relevant occupation, as well as, if necessary, a qualification from the *Berufsschule*
- or a qualification from the *Berufsschule* or equivalent qualifications and at least five years' experience in a relevant occupation.

Admission requirements for a *Fachschule* for social professions are generally the *Mittlerer Schulabschluss* and successful completion of relevant vocational education and training.

Curriculum

Curriculum at universities and equivalent institutions of higher education

The structure and contents of the courses of studies are specified in module descriptions, *Studienordnungen* (study regulations) or *Studienplänen* (study plans) and *Prüfungsordnungen* (examination regulations). Module manuals or module catalogues describe the modules in terms of student workload and the number of credit points awarded. The description of a module contains at least the following information:

- content and qualification objectives of the module
- teaching forms
- prerequisites for attendance
- applicability of the module
- prerequisites for the award of credit points
- credit points and marks
- frequency at which modules are offered

- student workload
- duration of the modules.

As a rule, the study regulations list the individual modules – including the credits to be awarded – required for successful completion of a course of study, and show which subjects are compulsory, elective and optional. Study regulations and module descriptions furnish guidance to the students, on the one hand, while serving as the basis for the planning of the curriculum in each department, on the other.

The *Prüfungsordnungen* (examination regulations), on the other hand, specify the *Regelstudienzeit* (standard period of study), requirements for entry to examinations, crediting of specific courses and examinations taken, time allowed for completion of a dissertation, examination standards, procedures and examination subjects. In some Länder the examination regulations also lay down the volume of compulsory and elective courses and the necessary attendance and performance records.

Accreditation of study courses

With the introduction of the Bachelor's and Master's study courses from 1998, work has started on the development of an independent accreditation system for these courses. According to the resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of March 2002, a system of accreditation (accreditation of study programmes) is replacing the former system of coordination of study and examination regulations. The aim of accreditation is to guarantee standards in terms of subject and content, compliance with structural guidelines and examination of the professional relevance of the qualifications through a formalised and objectively verifiable procedure. Accreditation can also be carried out in the form of system accreditation. The focus of system accreditation is the internal quality assurance system of a higher education institution. A positive system accreditation certifies that the higher education institution's quality assurance system in the field of study and teaching is sufficient to guarantee the achievement of the qualifications objectives and the quality standards of the study courses. For accreditation of Bachelor's and Master's study courses the Standing Conference has set up an independent Accreditation Council (*Akkreditierungsrat*) acting on behalf of all Länder which, since 2005, operates as a foundation under public law (see also chapter 11.3.).

The structural guidelines valid for all Länder adopted by the Standing Conference of the Ministers of Education and Cultural Affairs in October 2003 form the basis for the accreditation. These serve as a framework for the planning and conception of study courses. The structural guidelines of October 2003, most recently amended in February 2010, refer, amongst others, to the structure and length of study. They stipulate that Bachelor's study courses, as study courses which lead to a first degree qualifying for entry into a profession, must provide the academic foundation, methodological skills and qualifications related to the professional field corresponding to the profile of the higher education institution and the study course, and generally ensure a broad academic qualification. Bachelor's and Master's study courses are provided with a credit point system which is based upon the European Credit Transfer System (ECTS).

Foreign language teaching

To do justice to the importance of foreign language teaching in higher education, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in 1991 issued directives on attainment of a *technical language* certificate (*Richtlinien für den Erwerb eines Zertifikats "Fachsprache"*). Foreign language training is optional; as a rule, this certificate can be obtained after four semesters' training for a total of 12 to 16 hours of attendance per week during a semester (a workload of 170 to 200 hours in total) and after a final examination. German universities traditionally offer a wide range of foreign language courses, both general and technical in orientation. Classes are given in many European and non-European languages.

Curriculum at colleges of art and music

The observations on regulations governing studies and examinations at universities and equivalent institutions of higher education essentially apply to colleges of art and music as well.

Accreditation of study courses

The structural guidelines for all Länder and the specifications for programme and system accreditation passed by the Standing Conference of the Ministers of Education and Cultural Affairs also apply to colleges of art and music.

In a number of resolutions, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder has given recommendations on the organisation of artistic courses of studies to ensure the comparability of degrees awarded throughout the country. In December 2004, the Standing Conference passed a resolution that study courses at colleges of art and music should also in principle be included in the consecutive structure of study courses leading to Bachelor's and Master's degrees. The Education Ministers of the individual Länder decide whether to include the liberal arts study courses in cooperation with the particular higher education institution. For arts Bachelor courses at colleges of art and music the structural guidelines valid for all Länder provide for the promotion and development of artistic abilities, the teaching of basic scientific principles as well as methodical and professional skills.

Curriculum at Fachhochschulen

The observations on regulations governing studies and examinations at universities and equivalent institutions of higher education essentially apply to *Fachhochschulen* as well.

Accreditation of study courses

The structural guidelines for all Länder and the specifications for programme and system accreditation passed by the Standing Conference of the Ministers of Education and Cultural Affairs also apply to *Fachhochschulen*.

Foreign Language Teaching

Against the background of growing internationalisation, the teaching of foreign languages is becoming increasingly important. Numerous courses of studies at *Fachhochschulen* include foreign language classes either as a compulsory subject or an elective within the framework of general education subjects. Furthermore, many *Fachhochschulen* offer optional foreign language courses for students in all depart-

ments. The observations on the acquisition of the *technical language* certificate at universities and equivalent institutions of higher education apply to *Fachhochschulen* as well.

Dual Study-Courses

Study courses at *Fachhochschulen* are highly application-oriented and of great practical relevance. Against this background, *Fachhochschulen*, especially in the fields of engineering and business administration, also offer so-called dual courses of study (*duale Studiengänge*) in the form of study courses which integrate vocational training, work and practical placements. To this end the higher education institutions conclude cooperation agreements with companies which provide training or traineeships. The study courses which integrate vocational training link the study course with in-company training. The periods of study and work experience are distributed according to various models (sandwich or consecutive model) and subject to the *Studienordnung* (study regulations) or module description. Study courses at *Fachhochschulen* which integrate vocational training lead to two qualifications for entry into a profession: graduates are awarded the Bachelor's degree or a *Diplomgrad*, to which the word *Fachhochschule* is added, and, at the same time, they obtain the vocational education and training leaving certificate. In study courses which integrate practical placements, the students do more practical placements on a bigger scale, in addition to the practical semesters required in study courses at a *Fachhochschule*. Vocational integration study programmes combine the course of studies with a related professional activity.

In addition, *Fachhochschulen* in particular organise study courses that accompany training, work or professional practice that allow a Bachelor's or Master's degree to be completed alongside a professional activity with no structural or content-related interlocking.

The *Duale Hochschule Baden-Württemberg* (DHBW) is the first and only state dual institution of higher education, i.e. which combines practical experience and theoretical study, in Germany. It was founded in 2009 and continues the dual model of the former *Berufsakademie Baden-Württemberg*, which was successful for over 40 years. The organisational structure of the DHBW, which is based on the US American state university system with a central and local level, is also unique in Germany.

Curriculum at establishments outside the higher education system – Berufsakademien, Fachschulen

The students at the *BERUFSAKADEMIEN* complete parallel training with a company in trade and industry, with comparable establishments in other sectors – particularly in the case of the liberal professions – or at institutions maintained by social services. During the training, periods of study at the study institution (*Studienakademie*) alternate with periods of on-the-job training in the training establishments. Training is given on the basis of two kinds of study and training plans. Firstly, these are drawn up by the *Berufsakademien* together with participating companies and social services, and adopted by the ministries responsible in the form of ordinances. Secondly, these are also according to *Ausbildungsordnungen* (training regulations) and *Prüfungsordnungen* (examination regulations) of the *Berufsakademien* in accordance with general regulations of the responsible ministries.

In October 2004, the Standing Conference passed the resolution that Bachelor's training courses at *Berufsakademien* should be accredited. With the fulfilment of certain requirements, Bachelor's degrees obtained at *Berufsakademien* are thus equivalent to Bachelor's degrees obtained at institutions of higher education and thus provide access to Master's study courses. The requirements for the *Berufsakademien* apply in particular to teaching staff and to the scope of both theoretical and practical training components.

The requirements for admission to continuing vocational education courses and upgrading training at *FACHSCHULEN* are appropriate vocational education and training in conjunction with the relevant vocational experience. The compulsory component in the two-year *Fachschulen* comprises the multi-disciplinary and subject-specific areas in the five subject areas, as well as a practical in youth and community work or in healthcare support for the social services area. Instruction in the multi-disciplinary area serves primarily the acquisition of extended general knowledge, skills and competences. Instruction in the subject-specific areas serves the acquisition of extended vocational knowledge, skills and competences in one of the five subject areas.

Teaching Methods

Teaching methods at universities and equivalent institutions of higher education

Classes take the form of lectures, seminars, practical exercises, work placements and study trips. The main function of the lectures is to impart general and basic knowledge about the various fields of study. The seminars afford an opportunity to deal in depth with a more narrowly defined topic. Practical exercises and practicals, meanwhile, provide the opportunity to develop the theoretical knowledge gained in a practical manner. The Federation and Länder are promoting the use of digital media (multimedia and teleteaching) in the teaching offered which is continuously expanded.

The classes are normally designed for students of a specific degree course and at a particular stage in their studies. However, interdisciplinary classes have been gaining in significance, especially in the more advanced stages. So-called *Graduiertenkollegs* (providing university graduate training programmes) for the promotion of young scholars, for instance, are also frequently organised along interdisciplinary lines.

Teaching methods at colleges of art and music

One distinctive feature of studying at a college of art or music is that artistic instruction is given one on one or in small groups closely supervised by a member of the teaching staff.

Teaching methods at *Fachhochschulen*

Particular characteristics of courses of study at *Fachhochschulen* include practice-oriented training and a variety of teaching forms including lectures, seminars, practical exercises, work placements and study trips in small groups. The seminars afford an opportunity to deal in depth with a more narrowly defined topic, whilst practical classes and work placements enable the theoretical knowledge to be consolidated in a practical context. A further special feature of courses of studies at *Fachhochschulen* is the integration into the course of one or two *Praxissemester* (se-

mesters of work experience). The *Fachhochschule* lays down the rules for and content of these training periods, supervises them and provides parallel classes. They are spent in a company or in another place of work for a duration of at least 20 weeks. *Fachhochschulen* also offer dual study courses which integrate vocational training or a vocational traineeship into the course of study.

The principle of teaching small groups creates close contacts between teaching staff and students and enables students to interact in the class.

Teaching methods at establishments outside the higher education system – *Berufsakademien, Fachschulen*

A characteristic feature of training at a *Berufsakademie* is the division of each semester into on-the-job training and a theoretical part of the course at the study institution that lasts between ten and 12 weeks. During the theoretical part of the course, as a rule, students are taught in small groups. In addition to lectures and seminars, active teaching methods like role play, experimental games or case studies are applied.

See chapter 6.9. for teaching methods in continuing vocational education and vocational upgrading training at *Fachschulen*.

Progression of Students

Progression of students at universities and equivalent institutions of higher education, colleges of art and music and *Fachhochschulen*

Students at universities and higher education institutions are not classified in terms of year groups, but rather according to the courses or modules required for the successful completion of the course of study. If a student fails in a module, he or she must repeat that module only, without falling a semester behind his or her fellow students. In practice, however, failing courses usually prolongs a student's stay at university. *Studienordnungen* (study regulations) and *Prüfungsordnungen* (examination regulations) lay down the requirements for admission to a certain stage of studies or a particular module. Module examinations can in some cases be repeated several times.

It is generally possible to change one's course of study even in later semesters. If it is a course of study with nationwide restrictions on admission, the proviso is that the student in question obtains a study place for the subject of his choice. Previous periods of study and the courses and examinations that have been passed in another study course are to be recognised if there are no significant differences between the competences to be acquired and those demonstrated. Higher education institutions must give reasons for decisions rejecting such applications.

Progression of students at establishments outside the higher education system – *Berufsakademien, Fachschulen*

For admission to the final examination at *BERUFSAKADEMIEN* it is required, as a rule, that students submit the certificates they have obtained throughout their studies, and that they have undergone practical training in the training establishment in accordance with the training plan. The final examination may be retaken once or twice, failed attempts at the dissertation may be repeated only once. The regulations of the Länder apply for the retake of the examination and the dissertation.

The information given in chapter 6.10. essentially applies for progression at *FACHSCHULEN*.

Employability

Measures to facilitate the transition from university to working life

The universities' student counselling offices and the employment agencies' career guidance services furnish information and guidance to help graduates move from higher education into the professional world. Higher education institutions are also increasingly setting up so-called Career Centres which combine student counselling and the teaching of professionally-relevant key qualifications (see chapter 12.7.). Their prospects on the employment market may be improved by specialising in appropriate fields of study and enrolling in appropriate *weiterführende Studiengänge* (further study, supplementary and follow-up courses). Work placements afford an opportunity to gain an insight into the working world and establish contact with prospective employers. Proof of work experience (for four to six months, in some cases up to a year) acquired before or while studying is demanded in a number of fields, especially in natural and engineering sciences. To improve the employment prospects of arts and social science graduates, some higher education institutions have set up programmes in collaboration with employment agencies to place them in industry and equip them with key skills (e.g. a grounding in computing, elementary business skills).

The connections between higher education institutions and their former students (Alumni) can also facilitate the entry of their graduates into professional life.

Many institutions of higher education offer measures designed to prepare for self-employment and to encourage students to set up their own businesses.

Measures to facilitate the transition from colleges of art and music to working life

Many of those who complete artistic studies have difficulty finding suitable employment or earning an adequate livelihood from their own artistic endeavours. To improve their prospects, subjects have therefore been added to the curricula that qualify them for practical work (educational sciences/didactics, management in the cultural sector). The transition to working life can be eased by a suitable choice of courses and extra qualifications.

Measures to facilitate the transition from *Fachhochschulen* to working life

Student counselling offices at *Fachhochschulen* and the career guidance services of the employment agencies furnish information and guidance to help graduates move from higher education into the professional world. Their prospects on the employment market may be improved by specialising in appropriate fields of study.

The declared aim of a *Fachhochschule* education is that it should be closely related to professional practice. This purpose is served chiefly by incorporating one or two *Praxissemester* (semesters of work experience) into the course of study. In many cases the topics of *Diplomarbeiten* or *Bachelorarbeiten* (dissertations) derive from problems that students have encountered in the practical semesters. In some cases, they are prepared in collaboration with industry and trade. In this way, students can gain an insight into the working world and establish contact with prospective employers before graduating. The offices for practical training (*Praktikantenämter*) at the institutions of higher education and the careers advice service of the em-

ployment agencies provide help finding placements. In addition, it is also possible to look for placements in Internet marketplaces for practical training (*Praktikantenbörsen*).

In dual study courses vocational training or a vocational traineeship is already integrated into the study at the *Fachhochschule* and is carried out in cooperation with suitable companies.

Fachhochschulen can also facilitate the entry of their graduates into professional life through connections with their former students (Alumni).

Measures to facilitate the transition from *Berufsakademien* to working life

Thanks to the combination of theoretical and practical training, graduates of vocational education and training courses based on a dual system offered by the *Berufsakademien* are prepared for working life during their actual studies. It is often the case that students are even taken on after obtaining their qualification for entry into a profession at the *Berufsakademie* by the very company that trained them.

Student assessment

Student assessment at universities and equivalent institutions of higher education

Bachelor's and Master's study courses are subject to quality assurance through accreditation. For the accreditation of a study course, it is to be established that the course is modularised; the examinations are in general performed as an accompaniment to studies. In addition, the study courses are provided with a credit point system. The credit points are related to instruction as such, as well as to the time needed to prepare and go over the taught subject-matter, preparation for examinations and the examinations themselves and, if applicable, to internships. For a Bachelor's degree, no less than 180 ECTS points must be submitted. A written dissertation (Bachelor's thesis/ Master's thesis) is obligatory for both Bachelor's and Master's study courses. Students are to demonstrate the ability to independently address a problem from their subject within a specified period of time using academic methods. The scope of the work for the Bachelor's dissertation comprises a minimum of 6 ECTS credits and must not exceed 12 ECTS credits.

The *Prüfungsordnungen* (examination regulations) prescribe the objectives of and subject-matter on the examinations, the required standards and the examining procedures for each study course. In modularised courses of study, the individual modules are to be determined, inter alia, with regard to course contents and objectives, the workload, the credit points to be awarded and the examination requirements.

Credit points and grades must be shown separately. Alongside the grade based on the German grading scale from 1 to 5, in the final grade a relative grade is also to be shown.

Student assessment at colleges of art and music

Certificates are issued for classes successfully completed at art colleges, too. In addition to written and oral examinations, it is above all artistic abilities that are tested.

For consecutive Bachelor's and Master's study courses with a total standard study period of six years in one of the core arts subjects a Master's degree requires 360 ECTS points in principle including the previous course of study.

Student assessment at *Fachhochschulen*

For student assessment in Bachelor's and Master's study courses at *Fachhochschulen*, the observations on student assessment at universities and equivalent institutions of higher education apply.

Student assessment at establishments outside the higher education system – *Berufsakademien, Fachschulen*

Bachelor's and Master's training courses are subject to quality assurance through accreditation. For the accreditation of a training course, it is to be established that the course is modularised and provided with a credit point system; the examinations are in general performed as an accompaniment to studies. The general information on assessment of performance in Bachelor's and Master's degree courses at universities and equivalent higher education institutions also apply to Bachelor's degree courses at *Berufsakademien* (professional academies). In the theoretical section of the training course, intermediate examinations consist amongst others of written examinations, seminar papers, oral examinations, presentations and scientific papers. In practical professional training, intermediate examinations for the most part consist of project papers.

For student assessment in continuing vocational training at *Fachschulen*, see chapter 6.10., which explains the basic principles for performance assessment and the awarding of marks.

Certification

Certification at universities and equivalent institutions of higher education

With regard to higher education degrees, a distinction is drawn between academic, state and ecclesiastical examinations. As a rule, a higher education qualification for a profession is conferred on the basis of these examinations.

Institutions of higher education are authorised by law to administer *Hochschulprüfungen* (academic examinations). The Bachelor examination is an academic examination on the basis of which the Bachelor's degree is conferred.

Bachelor's study courses lay academic foundations, provide methodological skills and lead to qualifications related to the professional field corresponding to the profile of the higher education institution and the study course. The Bachelor's degree provides the same rights as *Diplom* qualifications obtained at a *Fachhochschule*.

The following designations are used for Bachelor's degrees at universities and equivalent institutions of higher education:

- Bachelor of Arts (B.A.)
- Bachelor of Science (B.Sc.)
- Bachelor of Engineering (B.Eng.)
- Bachelor of Laws (LL.B.)
- Bachelor of Education (B.Ed.)

Universities and equivalent institutions of higher education add a diploma supplement to the leaving certificate that describes, usually in English, the progress of the studies and the performance of the graduate.

For Bachelor's and Master's degree courses which provide the prerequisites for a teaching career in the Roman Catholic or Protestant religion, the common structural

guidelines of the Länder for the accreditation of Bachelor's and Master's study courses (*Ländergemeinsame Strukturvorgaben für die Akkreditierung von Bachelor- und Masterstudiengängen*) and the guidelines for the mutual recognition of Bachelor's and Master's degrees in teacher training courses conveying the educational prerequisites for teaching positions (*Eckpunkte für die gegenseitige Anerkennung von Bachelor- und Masterabschlüssen in Studiengängen, mit denen die Bildungsvoraussetzungen für ein Lehramt vermittelt werden*) apply. For all other Bachelor's and Master's study courses in Roman Catholic or Protestant Theology/Religion the common structural guidelines which apply to all Länder for the accreditation of Bachelor's and Master's study courses are valid. Except where otherwise stipulated, these study courses lead to the degree titles Bachelor of Arts (B.A.) and Master of Arts (M.A.). For the accreditation of these courses, alongside the relevant state rules the Church rules are also to be taken as a basis.

On the basis of agreements with a foreign institution of higher education, some universities also award a foreign degree (double degree) or a joint degree in addition to the German degree.

Certification at colleges of art and music

The artistic qualification awarded on completion of a first degree course of study is the Bachelor or the *Diplom*. Apart from artistic training, art colleges also provide courses of teacher training, which entitle students to teach art or music at schools after passing their *Staatsprüfung* (state examination) and undergoing *Vorbereitungsdienst* (preparatory service). In 2003 and 2004, the Standing Conference adopted general guidelines for training in the subjects art and music for all teaching careers.

Colleges of art and music as well already offer teacher study courses which lead to a higher education examination within the framework of the consecutive study structure. Information on teacher training courses conveying the educational prerequisites for teaching positions are available in chapter 9.1.

In December 2004, as part of the structural requirements that are binding for all Länder, the Standing Conference passed a resolution for the accreditation of Bachelor's and Master's study courses at colleges of art and music. The following designations are used for Bachelor's degrees at colleges of art and music:

- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Arts (B.A.)
- Bachelor of Music (B.Mus.)

The number of Bachelor's and Master's degree courses at *Kunsthochschulen* and *Musikhochschulen* (colleges of art and music) has rapidly increased over the past few years. Just less than 71 per cent of all study courses on offer at German colleges of art and music are Bachelor's and Master's degree courses.

Certification at Fachhochschulen

Fachhochschulen award the Bachelor's degree and the Master's degree as a final qualification at the end of the degree course; the *Diplomgrad* is also still awarded at present to a lesser extent. On the basis of agreements with a foreign institution of higher education, some *Fachhochschulen*, confer a foreign degree (double degree) or a joint degree in addition to the German *Diplom*.

Bachelor's study courses lay academic foundations, provide methodological skills and lead to qualifications related to the professional field corresponding to the profile of the higher education institution and the study course and lead to the Bachelor's degree. The Bachelor's degree generally provides the same rights as *Diplom* qualifications acquired at a *Fachhochschule*.

The following designations are used for Bachelor's degrees at *Fachhochschulen*:

- Bachelor of Arts (B.A.)
- Bachelor of Science (B.Sc.)
- Bachelor of Engineering (B.Eng.)
- Bachelor of Laws (LL.B.)

The *Fachhochschulen* add a diploma supplement to the leaving certificate of the *Diplom* and *Magister* study courses, as well as to the Bachelor/Master study courses, that describes, usually in English, the study course, the progress of the studies and the performance of the graduate.

Certification at establishments outside the higher education system – *Berufsakademien, Fachschulen*

Berufsakademien

The degrees awarded by *Berufsakademien* based on the Baden-Württemberg model are amongst the degrees in tertiary education. Provided that they satisfy certain criteria, they are covered by the EU directive on a general system for the recognition of higher-education diplomas. These criteria include, above all, entrance requirements and the qualifications of the teaching staff, as well as certain institutional requirements in terms of the range of training on offer and cooperation between the *Studienakademie* (study institution) and training company. The degrees awarded by the *Berufsakademien* in Sachsen and the degrees awarded by the *Berufsakademie* integrated into the *Hochschule für Wirtschaft und Recht Berlin* as well as the state-recognised *Berufsakademie* in Schleswig-Holstein also meet these criteria.

In October 2004, the Standing Conference has passed criteria for the accreditation of Bachelor's training courses at *Berufsakademien*. The state-recognised Bachelor's degrees obtained after the completion of training courses which have been accredited on this basis are equivalent to Bachelor's degrees obtained at institutions of higher education. The academic equivalence of the Bachelor's degrees is linked to their equivalence with regard to the right to practise certain professions. However, the designation does not refer to a higher education degree but to a state-recognised degree.

Fachschulen

Depending on the discipline, successful completion of the two-year *FACHSCHULE* entitles graduates to use the occupational titles state-certified agricultural economist (*Staatlich geprüfter Agrarbetriebswirt*), state-certified technician (*Staatlich geprüfter Techniker*), state-certified business economist (*Staatlich geprüfter Betriebswirt*) or, in the field of home economics, state-certified home economics manager (*Staatlich geprüfter hauswirtschaftlicher Betriebsleiter*), and state-certified designer (*Staatlich geprüfter Gestalter*), as well as other occupational titles in the social professions, e.g. state-recognised youth or child-care workers (*Staatlich anerkannter Erzieher*). It is also possible to obtain the *Fachhochschulreife* at the *Fachschule*.

7.3.2. Short-Cycle Higher Education

Short-cycle study programmes are not offered in the Federal Republic of Germany.

7.4. Second Cycle Programmes

Branches of study

For a detailed discussion of the branches of study offered at institutions of the tertiary sector, see chapter 7.3.1.

The standard period of study for Master's study courses can be two, three or four semesters. At universities and equivalent institutions of higher education as well as at colleges of art and music, the standard period of study for Bachelor's study courses is generally four semesters.

At *Fachhochschulen* the standard period of study for Master's study courses is generally three to four semesters

Admission requirements

The admission requirement for a Master's study course is, as a rule, a higher education degree qualifying for entry into a profession. Under Land higher education laws, in clearly defined exceptional cases for Master's study courses providing further education and for artistic Master's study courses, an entrance examination may take the place of the requirement for a higher education degree qualifying for a profession. For quality assurance purposes or on grounds of capacity, additional admission requirements may be laid down for Master's study courses. Admission requirements are subject to accreditation. The Länder may reserve the right to approve admission requirements.

For admission to artistic Master's study courses, the special artistic aptitude required for this must be demonstrated in addition to the Bachelor's qualification. This can also be done by a special aptitude examination.

For admission to Master's study courses providing further education, also evidence of qualified employment is required for a period of not less than one year as a rule.

Curriculum

The common structural guidelines of the Länder for the accreditation of Bachelor's and Master's study courses (*Ländergemeinsame Strukturvorgaben für die Akkreditierung von Bachelor- und Masterstudiengängen*) distinguish between research-oriented Master's study courses and practice-oriented ones as well as consecutive Master's study courses and Master's study courses providing further education. Master's study courses providing further education should take professional experience into account and build on it.

Master's degree courses at colleges of art and music should have a special artistic profile which must be laid down in the accreditation and set out in the *Diploma Supplement*. More detailed information on the *Diploma Supplement* is available in chapter 7.3.1.

Teaching methods

For a discussion of teaching methods at institutions of the tertiary sector, see chapter 7.3.1.

Progression of students

For a discussion of the progression of students at institutions of the tertiary sector, see chapter 7.3.1.

Employability

For a detailed discussion of measures to facilitate the transition from institutions of the tertiary sector to working life, see chapter 7.3.1.

Student assessment

A Master's degree requires 300 ECTS points, including the preceding course of study for the first qualification for entry into a profession. This requirement can be waived in special cases where students can demonstrate that they are suitably qualified.

The scope of the work for the Master's dissertation should range from 15–30 ECTS credits.

For consecutive Bachelor's and Master's study courses with a total standard study period of six years in one of the core arts subjects a Master's degree requires 360 ECTS points in principle including the previous course of study.

Credit points and grades must be shown separately. Alongside the grade based on the German grading scale from 1 to 5, in the final grade a relative grade is also to be shown.

Certification

In designating consecutive Master's degrees, no distinction is made between the profile types "practice-oriented" and "research-oriented". The Master's degree provides the same rights as *Diplom* and *Magister* qualifications of universities and equivalent higher education institutions.

The following designations are used for Master's degrees in consecutive Master's study courses at universities and equivalent institutions of higher education:

- Master of Arts (M.A.)
- Master of Science (M.Sc.)
- Master of Engineering (M.Eng.)
- Master of Laws (LL.M.)
- Master of Education (M.Ed.)

The following designations are used for Master's degrees in consecutive Master's study courses at colleges of art and music:

- Master of Fine Arts (M.F.A.)
- Master of Arts (M.A.)
- Master of Music (M.Mus.)

The following designations are used for Master's degrees in consecutive Master's study courses at *Fachhochschulen*:

- Master of Arts (M.A.)
- Master of Science (M.Sc.)
- Master of Engineering (M.Eng.)
- Master of Laws (LL.M.)

In Master's degrees of Master's study courses providing continuing education, specialist and other designations may be added, such as Master of Business Administration (MBA).

7.5. Programmes Outside the Bachelor and Master Structure

In the course of the Bologna Process to establish a European Higher Education Area the study system is being converted to the consecutive structure of study with Bachelor's and Master's qualifications. The study structure reform has largely been completed. In the 2015/2016 winter semester, 90.9 per cent of all study offers at German institutions of higher education were Bachelor's and Master's study courses.

Alongside the Bachelor degree, the *Diplom* degree, the *Magister* degree as well as Church and state qualifications obtained after an integrated single-cycle course of study exist as first vocational degrees qualifying for an occupation.

Diplom and Magister

A small number of study courses end with a *Diplom* examination. Courses of studies that culminate in a *Diplom* concentrate on a single subject. The *Diplom* examination is associated with a *Diplom* degree (e.g. *Diplom-Psychologe*). The *Fachhochschule Diplom* certificate bears the additional notation ("FH" for *Fachhochschule*), e.g. *Diplom-Ingenieur/-in (FH)*.

A very small number of courses currently still end with a *Magister* examination. Courses of study that lead to a *Magister*, Bachelor's or Master's degree admit a combination of several subjects (usually one major subject and two minor subjects, or two equally weighted major subjects), particularly in arts subjects. The *Magister* examination is associated with the award of the *Magister* degree (e.g. *Magister Artium*).

The *Fachhochschule Diplom* qualification is assigned to the Bachelor level; university *Diplom* qualifications and *Magister* qualifications correspond to the Master's level.

Staatsprüfung

A state examination or *Staatsprüfung* has to be taken in some courses of studies that prepare students for professions of particular importance to the public interest. This is the case in medicine, dentistry, veterinary medicine, pharmaceuticals, food chemistry, law and to some extent the teaching profession. The standards of performance on state examinations correspond to those on academic examinations. Hence, the difference between state and academic examinations is essentially of a formal nature. In the case of state examinations, representatives of the state examination bodies act as examiners along with university professors. After the First State Examination, prospective lawyers and teachers, in particular, undergo a second phase of training called *Vorbereitungsdienst* or preparatory service, which is concluded by another state examination. Only this Second State Examination entitles them to practise their profession. Information on teacher training courses conveying the educational prerequisites for teaching positions are available in chapter 9.2.

As a rule a state examination entitles graduates to start doctoral studies in the same way as an academic degree.

Theological degrees

In December 2007 the Standing Conference adopted the guidelines developed in conjunction with the Protestant Church in Germany and the German Bishops' Conference (*Deutsche Bischofskonferenz*) on the structure of study courses in Roman Catholic or Protestant Theology/Religion (*Eckpunkte für die Studienstruktur in Studiengängen mit Katholischer oder Evangelischer Theologie/Religion*). For theological courses of study which qualify students for the ministry, priesthood or the profession of a pastoral assistant (*theologisches Vollstudium* – full theological course of study) the guidelines provide, until further notice, for courses which conclude – after a standard study period of five years in total – with an academic and a Church examination. There are no plans at present to introduce a consecutive study structure pursuant to the Bologna Process within the *theologisches Vollstudium*. The courses of study are, nonetheless, modularised and provided with a credit point system.

Other postgraduate study courses

In addition to the courses leading to a first degree, besides consecutive Master's study courses and Master's study courses providing further education, there are other postgraduate study programmes (further study, supplementary and follow-up courses) of two to four semesters' duration that either build on the first degree, providing further vocational skills, increased specialisation and reinforcement, or are taken in parallel with a different course of study. Postgraduate study courses are usually taken immediately after or during the first degree course of study. Key characteristics of postgraduate study courses, on the basis of which a degree can be awarded, are, inter alia:

- a completed higher education course of study leading to a first degree as the admission requirement and, where applicable, additional admission requirements depending on the objective of the postgraduate study course
- specific orientation to the level of qualification achieved in the first degree qualifying for entry to a profession and corresponding admission requirements
- the standard period of study (including practical study segments and examination periods) for study courses which lead on a full-time basis to a degree qualifying for entry to a profession is at least two and no more than four semesters
- the structuring of the study course through an examination regulation
- a compulsory academic dissertation and an additional examination
- the award of an independent qualification, which requires the knowledge and abilities acquired in the first degree course, but goes far beyond them.

Other special graduate study courses at universities and equivalent institutions of higher education lead to the awarding of a certificate stipulating the level achieved or to a further higher education degree (*Diplom, Magister*).

At colleges of art and music, special graduate study courses culminate in a *Abschlussprüfung* (final examination), the *Konzertexamen* (concert examination) or a further *Diplom* degree.

At *Fachhochschulen*, special graduate study courses culminate in the award of a second *Diplom* degree or proof of academic achievement (certificate).

Information on Master's study courses providing continuing education can be found in chapter 7.4., as they are part of the Bachelor and Master structure.

An overview of the range of special graduate courses on offer provided by the German Rectors' Conference (*Hochschulrektorenkonferenz – HRK*) is available on the Internet at www.hochschulkompass.de.

7.6. Third Cycle (PhD) Programmes

Particularly well-qualified students may also choose to complete a doctorate. The disciplines in which it is possible to obtain a doctorate at universities and equivalent institutions of higher education are listed under www.higher-education-compass.de.

The paths to a doctorate in Germany are varied. The leading model in Germany is the individual, supervised doctorate. Structured doctoral programmes are also becoming increasingly important. Doctoral studies are completed at universities, to some extent in cooperation with non-university research institutes. There is also the option of cooperative doctoral studies programmes between universities and *Fachhochschulen*. There are currently more than 110,000 doctoral students enrolled at the institutions of higher education. The total number of doctoral students in Germany is estimated at being just less than 200,000. About 28,000 obtained their doctorate in 2015.

Organisation of doctoral studies

In order to support the up-and-coming academics, *Graduiertenkollegs*, financed by the German Research Foundation (*Deutsche Forschungsgemeinschaft – DFG*), have been set up at institutions of higher education since 1990 to provide students with the opportunity to prepare their doctorate within the framework of a systematic programme. In 2015 there were 235 *Graduiertenkollegs* in Germany. Since 1998, there has been a larger number of other structured forms of training for doctoral students. These include international doctoral programmes, International Max-Planck Research Schools, Graduate Schools and graduate schools (*Graduiertenschulen*) promoted within the framework of the Excellence Initiative of the Federation and the Länder for the Promotion of Science and Research in German Higher Education Institutions (*Exzellenzinitiative des Bundes und der Länder zur Förderung von Wissenschaft und Forschung an deutschen Hochschulen*). Structured doctoral study courses and special doctoral programmes are also becoming increasingly important.

Admission requirements

Admittance to doctoral studies is regulated in the Higher Education Acts of the Länder (R126, R128, R131, R133, R135–136, R139, R141, R143, R145–146, R148, R149–152, R154, R157, R159, R162) and in the doctoral regulations (*Promotionsordnungen*) of the universities and equivalent higher education institutions. Master's degrees obtained at universities and equivalent higher education institutions, or at *Fachhochschulen*, always provide entitlement to doctoral studies. As a rule, a pass in the *Erste Staatsprüfung* (First State Examination) also provides entitlement to doctoral studies.

Particularly well-qualified holders of a Bachelor's degree may also be admitted directly to doctoral studies without first acquiring a further degree by means of a procedure to determine aptitude. The universities will regulate admission as well as

the organisation of the procedure to determine aptitude in their doctoral regulations. In addition to their respective qualification, students are required to complete preparatory academic studies in the subjects to be studied at doctorate level and/or a supplementary period of study at the university in question or have to sit an aptitude test (*Promotionseignungsprüfung*).

Master's degrees obtained at colleges of art and music entitle graduates to embark on doctoral studies only if the Master's study course provided a sufficient qualification.

It is not possible to obtain a doctoral degree from a *Fachhochschule*, given that, as a rule, only universities and equivalent institutions of higher education are entitled to award doctorates. Increasingly, however, use is being made of the option of cooperative doctoral studies programmes between universities and *Fachhochschulen*. The universities will regulate cooperation with *Fachhochschulen* in their doctoral regulations.

Funding of doctoral students/candidates

Some doctoral students are employed, while others are funded by grants or finance their own doctoral studies. Grants and funding programmes are provided by the Federation, Länder, research and funding organisations, organisations for the promotion of young talent and political foundations. The rate of funding varies.

Assessment

A doctorate is conferred on the strength of a doctoral thesis, which must be based on independent research, and oral examinations called *Rigorousum*. Oral examinations may be replaced by a defence of the student's thesis (*Disputation*) or a comparable achievement. A doctoral thesis need not be written within any prescribed length of time.

Certification

The doctorate entitles a graduate to bear the *Doktorgrad* (title of *Doktor*).

Organisational Variation

The potential organisational formats of the doctorate are set out above.