FAQs – Doing a doctorate in Germany
Hello and welcome!

ARE YOU THINKING ABOUT DOING A DOCTORATE?
If you are, you should consider taking this important career step in one of the world’s leading research nations. Germany welcomes international graduates and German universities and research institutions offer excellent opportunities for researchers and doctoral students.

Research and innovation have a high standing in Germany. Forward-looking investments in education and research receive the highest priority: the country invests some 200 billion euros in this area. As a nation with a long cultural and scientific tradition, Germany offers exceptional infrastructure for research work: approximately 8,400 public and 240 academic libraries guarantee outstanding research opportunities. More than 370 institutions of higher education and 750 publicly funded research institutions open up a broad range of scholarly activities. Every year, over 25,000 scholars are awarded doctorates in Germany – far more than in any other European country – including some 3,600 from abroad. Especially attractive for foreign graduate students are the roughly 600 structured doctoral programmes, which frequently have a strong international orientation. These programmes offer extensive support, teamwork and an emphasis on practical application and lead to a doctorate within a manageable period. A German doctorate opens doors and opportunities for an international career.

This brochure aims to inform you about the requirements for and paths to doing a doctorate in Germany and provides a large number of links to further information. You will also find additional information about the research landscape in Germany, career opportunities and scholarships as well as the latest research news at www.research-in-germany.de

Doing a doctorate in Germany
11 important questions and answers

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Marked terms are explained in the Glossary.
1. Why study for a doctorate in Germany?

Germany is one of the world’s leading research nations. Its science and research are outstanding because of the excellent infrastructure, a great diversity of research fields and well-equipped research institutions. The researchers who work here are among the best in the world.

**German Universities: Unity of Research and Teaching**

German universities do not see themselves as “schools” for undergraduates and doctoral students, but as centres of the “unity of research and teaching”. This Humboldtian ideal influences the academic self-concept of the 370 institutions of higher education in Germany. Out of this total, some 140 have the right to award doctorates in subjects ranging from agricultural sciences to urban heritage. There are tradition-steeped institutions, such as Ruprecht-Karls-Universität in Heidelberg, which is Germany’s oldest university, founded in 1386, and there are very large ones, such as Ludwig-Maximilians-Universität in Munich, which has 46,000 students. Both of these institutions belong to the group of 37 universities receiving funding within the framework of the Excellence Initiative and are also two of the nine especially distinguished universities selected by the Initiative. In addition, there are also small, specialised private universities, such as the European Business School in the Frankfurt-Rhine-Main region.

One thing that these numerous and diverse institutions share is an international orientation. Approximately 240,000 international students are enrolled at German higher education institutions, where some 18,000 international graduate students a year are studying for doctorates and 26,000 foreign researchers work. That makes Germany one of the world’s most attractive research and higher education nations – after the USA and the UK.

**Excellent Non-University Research**

One reason why Germany’s research and higher education landscape is so attractive is, for example, the excellent networking that exists between German universities and non-university research organisations. The latter include such prestigious institutions as the Max Planck Society (MPG), the Scientific Community Gottfried Wilhelm Leibniz (WGL), the Helmholtz Association and the Fraunhofer-Gesellschaft (FhG). With hundreds of research institutes, tens of thousands of employees and billions of euros of research funding they constitute an important pillar of German research. For example, Max Planck Institutes (MPI) alone have produced 17 Nobel Prize winners since 1948.

**Intensive Industrial Research**

Close cooperation with industry also sets German research apart. Alongside roughly 750 publicly funded research establishments, there are numerous industrial research facilities that are closely networked with universities and other research institutes. German companies are among the most actively engaged in research in Europe. The proportion of companies conducting
research and development is approximately 70%. After the USA and Japan, Germany registers the highest number of triadic patents worldwide – in other words, patents that are submitted simultaneously in Europe, Japan and the USA. When it comes to the numbers of patents registered in the industries of the future – nanotechnology, biotechnology and renewable energies – Germany is also one of the world’s leading nations alongside the USA and Japan and ranks first in Europe.

NETWORKS AND CLUSTERS

In selected subjects and regions, industry, universities and non-university research institutions work closely together and pool the results of their research and development effort in networks and clusters. This enables them to exploit synergies in order to draw benefit from their knowledge advantage.

EXCELLENCE INITIATIVE

The Excellence Initiative was launched in 2006 to promote advanced research at universities and will provide selected institutions with roughly 2.7 billion euros of funding up to 2017. Support is being given to Graduate Schools, Clusters of Excellence and outstanding Institutional Strategies to promote top-level research.

www.excellence-initiative.com
(English, German)

OVERVIEW OF THE RESEARCH LANDSCAPE

Germany offers many research institutions: universities, universities of applied sciences, non-university research institutes, company institutes and institutions funded by the Federal Government or Länder. An overview is provided at the Research in Germany website.

www.research-in-germany.de/research_landscape
(English)

The Federal Ministry of Education and Research (BMBF) offers an online interactive research map. It enables users to find the locations of German research institutes and universities and provides information about and links to institutions.

www.forschungsportal.net
(English, German)

WISSENSCHAFT WELTOFFEN

This website publishes data on the international nature of degree programmes and research in Germany. It presents a large number of interesting facts and figures.

www.wissenschaft-weltoffen.de
(English, German)

FACTS ABOUT GERMANY

Interesting facts about all spheres of life in Germany – from politics and industry to culture – can be found in the Federal Foreign Office’s (online) handbook.

www.facts-about-germany.de
(17 languages)
2. What kinds of doctoral programmes are available in Germany?

There is no single path to a doctoral degree. There are different ways of doing a doctorate – depending on subject, research project, type of higher education institution and individual and organisational requirements. Fundamentally, however, it is possible to differentiate in Germany between the traditional individual doctorate and the increasingly popular structured doctoral training similar to the PhD programmes in English-speaking countries.

THE TRADITIONAL INDIVIDUAL DOCTORATE

The traditional individual path to a doctorate remains the most common in Germany. Here, a professor supervises a doctoral student, who works on his subject in consultation with the professor, but largely independently. Depending on the subject area, this research can be conducted alone or together with other researchers, within the framework of a post as research associate at the relevant institute, in a third-party funded project at the university or at a research establishment (common in the natural sciences). It is also possible to study for a doctorate while working in a (research) job in industry. How long a traditional individual doctorate takes depends on your own time schedule – or on the duration of your work contract. Three to five years are normal.

You will find more information under Question 4 “What do I need to know about an individual doctorate?”

STRUCTURED DOCTORAL PROGRAMMES

In addition to a traditional individual doctorate, Germany also offers the possibility of studying for a doctorate within a structured doctoral programme. Structured programmes are very similar to the PhD programmes in English-speaking countries, in which a team of supervisors look after a group of doctoral students. These programmes often offer a supporting curriculum, are interdisciplinary in nature and provide opportunities to acquire soft skills and additional qualifications.

Generally, the systematic and intensive support these programmes offer makes it possible to gain a doctorate in three years.

There are currently some 600 of these programmes available in Germany, but the figure is steadily rising. Universities offer structured doctoral programmes primarily in research training groups funded by the German Research Foundation (DFG) or at graduate schools supported by the Excellence Initiative. Additionally, there are programmes supported by German Länder at individual universities. In non-university research institutions, such as International Max Planck Research Schools (IMPRS), participation in structured, usually interdisciplinary doctoral programmes is now almost the rule.

Structured doctoral programmes often have a strong international orientation with English as the team language. Some programmes, such as the International PhD Programmes of the Helmholtz Association, are explicitly aimed at international doctoral students. About half of the doctoral students at IMPRS come from abroad. As a rule, programme-specific scholarships or jobs secure funding for the doctorate.

You will find more information under Question 5 “What do I need to know about structured doctoral programmes?”
3. What requirements will I need to meet?

In addition to a high level of motivation, initiative and commitment, you will need to meet a number of requirements to receive a doctorate. The most important formal qualification for being able to do a doctorate in Germany is a very good higher education degree that is recognised in Germany. Generally, that is a degree equivalent to a German Master completed after eight semesters of study. Exceptionally well-qualified international applicants might be admitted as doctoral students with a Bachelor degree (fast-track programme). Usually an examination is then required. More information can be found in the **DOCTORAL REGULATIONS**. Each university is responsible for decisions on the admission of doctoral students and the accreditation of qualifications. That is why applicants must apply for their degree to be recognised by the **DEAN’S OFFICE** (Dekanat) or the **BOARD OF EXAMINERS** (Promotionsausschuss). In some cases admission is dependent on a further examination that determines whether the applicant’s knowledge reaches the standard required for a German higher education degree.

**IS GERMAN A “MUST”?**

Although being able to speak the host country’s language is extremely useful, writing the doctoral thesis in German is often not a requirement. You can find out which languages can be used for your thesis in the respective **DOCTORAL REGULATIONS**. Structured programmes frequently allow students to complete their doctorate in English. If you are working for an individual doctorate and wish to enrol for a doctoral course
at the university, in some cases you may need to present a German language examination certificate.

WHAT ELSE?

The **DOCTORAL REGULATIONS** also contain initial information on the requirements with regard to the subject and content of a doctorate. What can be useful – and sometimes even a requirement – are letters of recommendation from your own university teachers.

LINKS

**GERMAN AS A FOREIGN LANGUAGE**
Knowledge of German is assessed in the Deutsche Sprachprüfung für den Hochschulzugang (DSH), the German language proficiency test for foreign students. The DSH consists of a written and an oral examination. The examination is usually free, but some universities do charge a fee, which is generally between 30 and 80 euros.

[www.sprachnachweis.de](http://www.sprachnachweis.de)  
(English, German)

Information about learning German is also offered by the German Academic Exchange Service (DAAD) at [www.learn-german.net](http://www.learn-german.net)  
(English, German)

Instead of taking the DSH, applicants can also demonstrate proficiency in German by taking a TestDaF examination in their home country.  
[www.testdaf.de](http://www.testdaf.de)  
(German)

**STEPS TO BECOMING A DOCTORAL STUDENT**

1. Degree
2. Find a supervisor, or apply to join a doctoral programme or research training group
3. Apply for recognition of your degree
4. If necessary, apply for acceptance as a doctoral student in the department
5. If necessary, apply for admission to the doctoral process (at some universities this is not necessary until later)
6. If necessary, apply for admission to a course of studies
7. If necessary, enrol as a doctoral student
4. What do I need to know about an individual doctorate?

In Germany, the most common route to a doctorate is the traditional path based on individual research under the supervision of an individual professor. This form of doctoral study offers a great deal of flexibility, but demands a high degree of personal initiative and responsibility.

HOW DO I FIND A SUPERVISOR FOR MY DOCTORATE?

A first step on the road to finding a supervisor for your doctorate is likely to be the search for a suitable institute at a university. The search engine at www.daad.de/research-explorer and the database at www.phdgermany.de (going online in autumn 2010) can be very helpful here. You can also discover which institution might be suitable with the aid of the Higher Education Compass of the German Rectors’ Conference (HRK). Its website also contains details of contacts at International Offices. If your own university teachers or your own university have contacts with an appropriate department or a specific professor this can also be very helpful.

When you have chosen a potential supervisor, you then have to present your research proposal and submit an application. The professor needs to know what, how well and where you studied, what your undergraduate dissertation was about and what area you would like to specialise in. You should at least be able to present a carefully thought-out outline of your doctoral thesis.

Once you have found a supervising professor, you will need to have your admission as a doctoral student accepted by the relevant department or BOARD OF EXAMINERS. At some universities it is also necessary to apply for admission to the doctoral process at this stage.

DOING A DOCTORATE AS A RESEARCH ASSOCIATE

A future doctoral student also needs a carefully thought-out outline of his or her thesis to apply for a (temporary) doctoral post. That is because the “typical” doctoral student in Germany works – usually part-time – as a RESEARCH ASSOCIATE at his university. Although research is usually part of the job description, most of the associate’s own doctoral research usually has to be carried out outside working hours. How closely teaching, research and/or administrative duties are actually tied into the doctoral student’s own research depends very much on the individual situation.
DOING A DOCTORATE IN INDUSTRY

Graduates who decide to work in industry and study for a doctorate part-time – often with funding and support from their employer – also need a university professor to supervise their research. In some cases, the employer already collaborates with a university or research institute and will help the doctoral student find the right person. People who have doctoral research posts within a company usually have part-time temporary contracts and work in a research project where they conduct their doctoral research under the supervision of a professor. When a university and an industrial company collaborate in specially established institutes, doctoral researchers usually work on their projects with their professor and a supervisor from the company.

CONTACTS ARE IMPORTANT

Once you have completed all the formalities, your life as a doctoral researcher can begin – usually alongside, after or even during your work at university, research institute or business. As a rule, a traditional doctorate does not involve attendance at lectures or seminars. The focus is solely on research for the doctoral thesis – at your desk or in the laboratory. If you are not yet tied into a doctoral network, now is the time to establish contacts with other researchers or doctoral students. Many universities offer platforms – either internally within an institute or on an interdisciplinary basis – where doctoral students can meet and exchange views, for example, in DOCTORAL STUDENT COLLOQUIA where different doctoral research projects are presented and discussed. Additionally, there are numerous subject-related networks and platforms for doctoral researchers on the Internet.

WHAT ELSE?

Although it is not always necessary, it can be advantageous for international students to enrol as a doctoral student even when they have opted for a traditional individual doctorate. The prerequisite for this is admission to the programme. You may need to present proof that you have passed the relevant German language examination. The International Office at the respective university can provide more details. The DOCTORAL REGULATIONS on departmental websites also provide information about requirements.

LINKS

RESEARCH EXPLORER
The Research Explorer database developed jointly by the German Research Foundation (DFG) and the German Academic Exchange Service (DAAD) contains information on over 17,000 institutes at German higher education institutions and non-university research establishments. It enables you to carry out searches for research institutions active in specific subject areas in Germany or possible supervisors for a doctorate.

www.daad.de/research-explorer
[English, German]
What do I need to know about structured doctoral programmes?

Structured doctoral programmes similar to the PhD programmes now common worldwide are also increasingly being offered in Germany. Unlike the traditional doctoral model that can be freely structured to suit the individual research project, here doctoral students and their research proposals have to fit in with an existing doctoral programme. The doctorate frequently entails a clearly structured doctoral study programme with compulsory attendance at lectures or seminars and interim assessment (credit points). Students work steadily at realising their research project within the team and with intensive support from a group of academic staff (often referred to as the “thesis committee”).

Lectures and seminars – usually in English – accompany the research training of the young researcher. The programme frequently also covers academic and scientific methods or soft skills, such as presentation techniques. Cooperation agreements between a university, research institutes and/or industrial companies often make it possible to realise the academic research project not only at a university institute, but also in an industrial company and/or a non-university research establishment.

HOW DO I FIND THE RIGHT STRUCTURAL DOCTORAL PROGRAMME?

There are currently around 600 structured doctoral programmes in Germany. They are offered as structured doctoral programmes organised by one or several collaborating universities, as (international) research
training groups of the German Research Foundation (DFG), as Excellence Initiative graduate schools or as doctoral programmes/research schools of non-university research institutes. They include, for example, International Max Planck Research Schools (IMPRS), which collaborate with one or several higher education institutions.

These programmes differ not only in terms of their approach to content – for example, whether they are closely tailored to a specific research project or, as in the case of graduate schools, involve various different subject areas in an interdisciplinary way – but also vary considerably in terms of their financial and human resources as well as their ability to support their doctoral students. Thorough research is therefore important here.

WHAT ELSE?

An important feature, particularly for international doctoral students, is the fact that structured programmes normally arrange for mentors to provide assistance, for example, in dealing with bureaucratic formalities.

Doctoral students in research training groups, graduate schools or non-university research schools usually either work as Research Associates in a research project or receive scholarships. Doctoral students on other structured programmes generally have to make their own efforts to obtain funding. They can also apply for a scholarship or have to look for a part-time job (see Question 8 for more details).

The answer to Question 7 provides an overview of the most important institutions offering structured doctoral programmes.

LINKS

PROGRAMME DATABASE

Although there is not yet a comprehensive database covering all doctoral programmes, most of them can be found relatively easy on the Internet. For example, you can search through the large number of programmes listed in the “International Programmes in Germany” database on the German Academic Exchange Service (DAAD) website. These programmes are especially interesting for international doctoral students because most are offered in English (or another foreign language).

www.daad.de/international-programmes
(English, German and other languages)
6. How do I apply for a place in a structured programme?

Whether graduate school, research training group, non-university research institution or binational university partnership, you have a broad choice of interesting doctoral programmes. When making your selection, you should focus on the following questions: Do the programme, the institution and the environment suit my doctoral proposal? What are the requirements? What is expected of doctoral students?

Once you have found a doctoral programme, you should invest sufficient time and care in preparing your application. In some cases, there are application deadlines for admission to programmes. It is therefore advisable to begin looking for a suitable programme in good time before graduation.

MULTISTAGE APPLICATION PROCEDURE

For your application to be successful, your planned doctoral thesis must fit in with the main emphases of the programme and you will need a good or very good degree that is recognised in Germany. Initial contacts are usually made over the Internet.

The application procedure itself often involves a number of different stages, but differs from programme to programme. Generally, however, as a first step you will need to submit a curriculum vitae, a copy of your degree certificate, a brief description of your doctoral research proposal and a letter outlining the reasons for your application. The second step, usually on request, involves a detailed application with a comprehensive exposé of the research project. This includes details of your time schedule, references from previous professors, copies of all certificates and your dissertation or special project and, possibly, proof of language proficiency. If these documents win over the admissions committee, the applicant is usually invited to a personal interview, which can under certain circumstances also be held as a telephone conference.

In addition to presenting your excellent degree and a good research proposal that fits in with the programme, you must make your personal motivations clear during the interview. You should ensure you are well informed about the demands of doing a doctorate in Germany and the differences to your home country. You should know what you expect of the doctoral programme and what is expected of you. Thorough preparation is therefore important.
WHERE CAN I FIND OUT ABOUT REQUIREMENTS?

The application procedure differs from programme to programme. The precise requirements and deadlines can be found on the website of the respective university, research training group or graduate school. The addresses of universities are available from the Higher Education Compass website and a list of research training groups and graduate schools from the German Research Foundation (DFG). Other structured programmes can be reached through the responsible research institutions.

LINKS

PROGRAMME DATABASE
The International Programmes database on the German Academic Exchange Service (DAAD) website presents a large selection of structured doctoral programmes in Germany. Links to individual programmes open up further search opportunities.

www.daad.de/international-programmes
(English, German and other languages)

HIGHER EDUCATION COMPASS
The Higher Education Compass search engine enables users to access details of doctoral study opportunities in individual departments. The database does not yet allow searches for structured doctoral programmes.

www.higher-education-compass.de
(English, German)

Under Question 7 you will find links and descriptions of the major providers of structured doctoral programmes.

7. Where can I do a doctorate?

Germany offers a wide range of different doctoral opportunities. In large cities and small towns, rural regions and metropolitan areas, doctoral students can choose between some 140 universities that are entitled to award doctorates. There are also over 200 DFG-funded research training groups (including 54 international research training groups) and 39 graduate schools. In addition, various non-university research schools and graduate schools – including more than 55 International Max Planck Research Schools (IMPRS) at over 30 different locations – collaborate with universities.

International doctoral students can choose between public or private and specialised or general institutions of higher education. The decision in favour of one particular location is as individual as the respective research project.
OVERVIEW OF THE MOST IMPORTANT PROVIDERS OF STRUCTURED DOCTORAL PROGRAMMES AND NON-UNIVERSITY DOCTORAL AND RESEARCH POSTS

RESEARCH TRAINING GROUPS OF THE GERMAN RESEARCH FOUNDATION (DFG)

Everything in the research training groups revolves around doctoral students. The next generation of researchers is qualified in diverse, thematically specialised research programmes. University research training groups receive funding from the DFG. You will find further information and an overview on the DFG website.

www.dfg.de/gk
(English, German)

EXCELLENCE INITIATIVE GRADUATE SCHOOLS

The graduate schools of the Federal Government’s Excellence Initiative offer structured doctoral programmes in an outstanding research environment and a broad disciplinary area. In the meantime, 39 graduate schools are each receiving funding totalling an average of 5.7 million euros over 5 years.

www.excellence-initiative.com
(English, German)

- Universities entitled to award doctorates (the numbers indicate how many doctorate-awarding institutions there are in a town)
- Excellence Initiative Graduate Schools
- International Max Planck Research Schools (IMPRS)
INTERNATIONAL DOCTORAL STUDIES IN GERMANY
The Federal Ministry of Education and Research (BMBF) and the German Academic Exchange Service (DAAD) are promoting the development of international doctoral training in a programme entitled International Doctorates in Germany (IPID). Support is being focused on two specific areas. Programme Line 1: Internationalisation of Doctoral Training at German Universities; Programme Line 2: Binational Doctoral Training Networks with a Foreign University.

www.daad.de/ipid
(English, German)

MAX PLANCK SOCIETY
Because the Max Planck Society (MPG) specialises in innovative basic research, its institutes are able to offer up-and-coming researchers excellent infrastructure and support. It is also able to provide financial support through doctoral research contracts or scholarships. The website lists the programmes available at International Max Planck Research Schools (IMPRS).

www.mpg.de
> Max Planck Institutes, Projects and Facilities
> Research Schools (English, German)

HELMHOLTZ ASSOCIATION
In collaboration with various institutions of higher education, Helmholtz Association research centres have established structured doctoral programmes under the auspices of Helmholtz Graduate Schools and Helmholtz Research Schools.

www.helmholtz.de/graduiertenschulen-kollegs
(English, German)

FRAUNHOFER-GESSELLSCHAFT
A number of Fraunhofer Institutes have also established doctoral and research partnerships with universities. These well-known centres of applied research offer an ideal environment for industry-related and application-oriented doctoral research. Furthermore, Fraunhofer-Gesellschaft (FhG) is also participating in DFG research training groups and two International Max Planck Research Schools (IMPRS).

www.fraunhofer.com
(English, German)

LEIBNIZ ASSOCIATION
Some of the institutes in the Leibniz Association (WGL), which covers a broad scientific spectrum, have also begun to run their own research and graduate schools in collaboration with universities.

www.wgl.de
(English, German)
8. How can I fund my doctorate?

In general, you do not need to pay any tuition fees to study for a doctorate at a publicly funded German university. Naturally you will need to meet your living costs. Currently, anyone applying for a visa to study in Germany must be able to prove they have access to a minimum of roughly 8,000 euros a year. As a rule, this sum is not sufficient to cover all the costs. On average, according to a survey by Deutsches Studentenwerk, a student in Germany spends 812 euros a month on rent, food, clothing, travelling, work materials, leisure activities, etc. Once you have enrolled at university, your expenditure list will also include the semester fees that have to be paid when you re-register every six months. The student card you then receive allows you to pay lower fares on the bus, eat cheaply at the refectory and often pay reduced admission fees.

In many cases, doctoral students at research training groups and graduate schools or non-university research schools either work on a research project as a research associate or receive a scholarship. Doctoral students on other structured programmes generally have to make their own efforts to obtain funding. They can

**RESEARCH EXPLORER**
The joint database of the German Research Foundation (DFG) and the German Academic Exchange Service (DAAD) provides links to over 17,000 institutes at German higher education institutions and non-university research establishments according to geographical, subject and organisational criteria.

[www.daad.de/research-explorer](http://www.daad.de/research-explorer)  
(English, German)

**HIGHER EDUCATION COMPASS**
The Higher Education Compass search engine enables users to access details of doctoral study opportunities in individual departments. You can search by various criteria, including institution, discipline and subject area, admission requirements, etc. However, the database does not yet allow searches for structured doctoral programmes.

[www.higher-education-compass.de](http://www.higher-education-compass.de)  
(English, German)
Also apply for a scholarship or have to look for a part-time job.

**ACADEMIC WORK / RESEARCH ACTIVITY**

Funding for a doctorate can differ very considerably. For an individual doctorate employment at a university is common. Often, doctoral students are employed as **Research Associates** on part-time fixed-term contracts at the institute of their supervisor, where they are usually deployed in teaching and/or in (usually third-party funded) research projects.

However, numerous support programmes and sponsorship organisations also support up-and-coming researchers outside higher education. Non-university research establishments – such as the Max Planck Society (MPG), Helmholtz Association, Leibniz Association (WGL) and Fraunhofer-Gesellschaft (FhG) – that do not have the **Right to Award Doctorates** themselves collaborate with universities for that purpose. They offer doctoral students scholarships and/or (usually fixed-term) contracts of employment – or a combination of the two. Usually doctoral students here are tied into structured, interdisciplinary training programmes. However, support is also possible in the form of regular research posts, which are especially typical of Fraunhofer-Gesellschaft (see Question 7 for additional information about research organisations).

Doctoral posts in industry usually offer doctoral students fixed-term contracts of employment on a part-time basis, industry-related and application-oriented research opportunities and favourable prospects for the period after graduation. Research-based companies – for example, in the automotive industry – are especially interested in recruiting doctoral students. Additionally, cooperative partnerships between universities and companies also exist in the field of applied research.

Here, the doctoral student is normally employed at the university and works on a research project in a mixed team of company and university employees.

Non-university research establishments, such as Fraunhofer Institutes, also offer doctoral opportunities in industry-related applied research projects in partnership with different universities. In this case, doctoral students have regular posts and work on a research project in conjunction with project partners from industry. The subject of the doctoral thesis arises from the everyday work – even if it does not necessarily directly correspond to the project. The doctoral research is supervised by a professor at one of the collaborating universities.

Of course, it is possible to study for a part-time doctorate “after work” without any support from an employer, but that is certainly not an easy path.

**SCHOLARSHIPS**

If you have a very good degree and excellent references, you can also attempt to gain the backing of one of the many scholarship programmes that also support foreign doctoral students. The largest provider of scholarships, especially for international doctoral students, is the German Academic Exchange Service (DAAD). In 2008 alone, the DAAD supported more than 2,500 international doctoral students with scholarships in Germany. Several large Federal Government-funded organisations that aim to support gifted students also
assist highly qualified foreign students. The prerequisite is acceptance to study for a doctorate at a German university. In addition to this, numerous smaller foundations and scholarship programmes award grants to gifted international doctoral students. This support is sometimes tied to a specific subject, country or project. In any event, this avenue of funding is certainly worth investigating.

PART-TIME JOBS

Doctoral students also have the option of meeting living costs with a part-time job. It is important here to observe possible restrictions. It is certainly advisable to seek the approval of the Aliens’ Authority and/or the Job Centre, because many exceptions apply, not only to citizens of new EU member countries. The same also applies to spouses if they wish to work in Germany. The Student Services employment agency can provide help in finding a part-time job.

LINKS

**EMPLOYMENT EXCHANGES**

Whether at a university, a research institute or in industry, (doctoral) posts for young researchers are generally advertised publicly in specialist journals, online employment exchanges or on the respective website of the relevant research establishment, university institute or company. The Academics website offers Germany’s largest online job market for researchers.

[www.academics.com](http://www.academics.com)  
(English, German)

The Research in Germany website offers an extensive list of links to employment exchanges in Germany.

[www.research-in-germany.de/jobs](http://www.research-in-germany.de/jobs)  
(English)

**SCHOLARSHIP DATABASES**

The German Academic Exchange Service (DAAD) website provides a wide range of information about studying in Germany. Its large scholarship database enables users to search for doctoral funding by research field and according to status.

[www.funding-guide.de](http://www.funding-guide.de)  
(English, German and other languages)

The “scholarship pilot” website of the Federal Ministry of Education and Research (BMBF) guides you through the scholarship jungle.

[www.stipendienlotse.de](http://www.stipendienlotse.de)  
(German)

**FUNDING FOR GIFTED STUDENTS**

Among the various organisations that aim to nurture talent and assist gifted students, twelve are supported by the Federal Ministry of Education and Research (BMBF). These in turn provide scholarships for outstanding doctoral students.

[www.stipendiumplus.de](http://www.stipendiumplus.de)  
(English, German, French)

**RESEARCH FUNDING IN GERMANY**

The Research in Germany website provides extensive information about the funding landscape in Germany and personal and project-related funding opportunities. It also offers access to databases with information on numerous scholarships and support programmes.

[www.research-in-germany.de/funding](http://www.research-in-germany.de/funding)  
(English)

**SUPPORT PROGRAMMES**

EURAXESS is an information and advice point for internationally mobile researchers that offers an extensive database of funding programmes for graduates and doctoral students planning a research stay in Germany.

[www.euraxess.de](http://www.euraxess.de)  
> Funding Database (English, German)
9. What does the doctoral examination involve?

The precondition for initiating the doctoral examination process is the submission of a written doctoral thesis. The requirements are high: a thesis is expected to demonstrate the candidate’s ability to engage in profound independent academic research. Furthermore, it must constitute an advance in scientific or scholarly knowledge. Additionally, it must satisfy specific formal criteria, which are defined in the examination regulations of the relevant departments. Writing the doctoral thesis in German is often not a requirement. By arrangement with the supervisor and subject to the relevant examination regulations, the thesis can also be written in English or another language.

ASSOCIATION OF GERMAN FOUNDATIONS

The Association of German Foundations provides general information about foundations and how they operate in Germany. Its website enables searches of the subjects covered by individual foundations. Unfortunately, the search engine is only available in German.

www.stiftungen.org
(German, partially English)

WORK PERMITS

General information and useful advice – for example, on the subject of work permits – are available from the Research in Germany website. As the name implies, the Research Stay section offers practical advice about a research stay in Germany.

www.research-in-germany.de/career
> Research Stay (English)

CUMULATIVE THESIS

According to surveys by the German Rectors’ Conference (HRK), the DOCTORAL REGULATIONS at more than one in five departments allow candidates to
complete their doctorate in a number of cumulative steps. Primarily in the natural sciences or medicine, it is meaningful to combine several essays published in prestigious specialist journals as a cumulative thesis instead of an exhaustive monograph, in other words, a single text. This offers the advantage of enabling candidates to promptly publish important research findings and does not involve spending too much time in the formulation of an exhaustive treatise. Nevertheless, the requirements for a cumulative thesis are usually strict: not every publication in every journal is recognised. And the more prestigious the specialist journal, the higher the hurdles to publication. After all, the presented article will normally be subjected to peer review, which entails qualitative appraisal by several experts in the relevant field. The precise conditions for acceptance of a cumulative thesis are defined in the individual \textbf{DOCTORAL REGULATIONS} of each department.

These can usually be accessed from departmental websites and contain the most important subject and departmental rules for the doctoral examination process. These include, for example, admission to the doctoral examination, rules on the submission of the thesis and the drafting of the report as well as the form of oral examination (\textit{Disputation}, \textit{Rigorosum}).

\section*{ORAL EXAMINATION}

In addition to an assessment of the thesis, the doctoral examination process also includes an oral examination in the form of either a \textit{Disputation} or \textit{Rigorosum}. This differs from university to university and from department to department. In a Disputation, the aims, approach and result of the thesis are usually presented publicly (within the university) and then defended and substantiated in a subsequent discussion. The Rigorosum, on the other hand, is generally a non-public oral examination of the candidate’s academic qualification. This usually does not only involve scrutiny of the subject of the thesis, but also other relevant and possibly broader fields of academic discipline. Alongside these main types there are also various hybrid forms. The oral examination normally lasts between one and two hours and, depending on the \textbf{DOCTORAL REGULATIONS}, can be conducted in a foreign language.

\section*{PUBLICATION}

As a rule, the doctoral title is only awarded to the candidate after the thesis has been made available to an academic audience by printing or equivalent forms of reproduction within a specific period and a specific number of obligatory copies have been presented to the university. The candidate then receives the right to bear the doctoral title.

Most universities now accept various methods of publication: the possibilities range from distribution through the book trade by a publisher, publication in a research journal or collection and reproduction by letterpress or colour printing to electronic publication and copies on microfiche. Here, too, the relevant path is defined in the respective examination regulations.
If you intend to continue working in an academic or research setting in Germany after your doctorate, a research scholarship from the German Research Foundation (DFG), for example, will enable you to work on a project in collaboration with an academic host of your choice for a period of up to two years. If you have between two and four years of postdoc research experience, you can apply to the prestigious Emmy Noether Programme, which enables excellent postdoctoral scholars to lead their own independent junior research group with funding that usually lasts five years.

Young talented researchers, especially from developing and newly industrialised countries, can look to the Alexander von Humboldt Foundation if their research project has considerable relevance for the development of their country of origin. Additionally, there is a large number of scholarships for postdoctoral researchers in specific subjects or from specific countries. Some of these scholarships can also be found in the German Academic Exchange Service (DAAD) scholarship database. The DAAD itself awards postdoctoral scholarships. Applications should be submitted in good time, during the final phase of doctoral studies.

10. What next?

When you decide to do a doctorate, you should already have a relatively clear idea of where you eventually want to go afterwards. You do not need a doctorate for every career path, but if you are planning an academic or research career, a doctorate is a must. Even in some media and service sector professions – for example, in publishing or in management consulting – a doctorate can be very helpful. In any event, a German doctorate is highly regarded internationally.

POSTDOCtORAL RESEARCH SCHOLARSHIPS

If you aim to remain in academia, you can work towards habilitation, the postdoctoral qualification normally required to become a full professor in Germany. A series of research scholarships are available in Germany to support the academic development of highly qualified international postdoctoral scholars.

THE PATH TO A CHAIR

The path to a professorial chair at a German university often still involves habilitation. Approximately 1,800 researchers a year attain this postdoctoral qualification in Germany – and over 5% of them are foreign nationals. For some time, however, up-and-coming researchers have also been able to qualify by first working as a junior professor. The prerequisite for this is an outstanding doctorate, teaching ability and academic competence. Junior professors who work at a univer-
Legal Requirements

In principle, the same entry and residence regulations apply to international postdoctoral researchers as to doctoral students (see Question 11). However, you may be required to apply for a residence permit for research purposes.

Highly qualified individuals – in other words, researchers with specialist knowledge, teaching personnel and research associates in senior positions – can immediately receive a permanent settlement permit and therefore a work permit if they have a job. An appropriate application at the relevant Aliens’ Authority is all that is required. Further information is available from [www.bamf.de/forschungsaufenthalte](http://www.bamf.de/forschungsaufenthalte) (German).

University are able to engage in independent research earlier. Some 900 junior professors, including 110 of foreign origin, currently teach and research in German higher education – and their number is rising.

This idea is supported by the German Research Foundation (DFG), for example, which offers a form of “start-up funding” for professorships. In collaboration with the relevant university, highly qualified researchers can apply for a Heisenberg Professorship. The DFG funds the post for five years, but the university must provide follow-up funding when the grant ends. In addition to the DFG evaluation process, applicants must also successfully complete the appointment procedure at the respective university.

The Volkswagen Foundation pursues a similar strategy with its Lichtenberg Professorships. It funds chairs for highly qualified young researchers for up to eight years on condition that their university contributes to the infrastructure and takes responsibility for funding the professorship when the grant expires. The programme is especially intended for outstanding scholars working in innovative areas of teaching and research on the margins of established fields in the respective disciplines. Applicants must have two to three years of postdoctoral research experience.

Other postdoctoral qualification paths are offered by non-university research institutions such as Helmholtz Centres and Max Planck Institutes (MPI). At the Max Planck Society (MPG), for example, especially gifted young researchers who have already accomplished outstanding work in their field can qualify for a senior research post as head of a junior research group. Young researchers can prove themselves by working independently with their own resources in a five-year research programme. Vacancies for young researchers are usually publicly advertised in specialist journals or in the job exchanges of the respective research institutes.
A CAREER IN INDUSTRY

Naturally, career opportunities also exist for international doctoral graduates outside the world of research. A doctorate can especially help your career prospects in research-driven industries, in commercial occupations and among lawyers and physicians. If you want to work in Germany after graduating here, you have one year to find a job: that is how long a residence permit can be extended for that purpose.

WHAT ELSE?

In principle, the German labour market is open to graduates – also from non-EU countries. Nevertheless, the precise legal requirements for a working stay should be clarified in advance. Different conditions and rules can apply depending on country of origin and occupation.

LINKS

SPONSORSHIP DATABASE FOR POSTDOCTORAL RESEARCHERS
The website of the Alexander von Humboldt Foundation provides extensive information about a large number of sponsorship programmes for international researchers.
www.humboldt-foundation.de
(English, German)

EMMY NOETHER PROGRAMME
Young researchers with an outstanding doctorate, international research experience and at least two years of postdoctoral research experience can apply to the German Research Foundation (DFG) for acceptance in the programme that prepares researchers for senior posts. Foreign applicants are expected to continue their research careers in Germany when funding ends.
www.dfg.de/emmy_noether
(English, German)

HEISENBERG PROGRAMME
The DFG’s Heisenberg Programme offers a two-part funding model for young researchers who already fulfil the requirements for a tenured professorship. In addition to the Heisenberg scholarship, the research foundation also funds university teaching posts with its Heisenberg Professorship.
www.dfg.de/heisenberg
(English, German)

LICHTENBERG PROFESSORSHIPS
The charitable Volkswagen Foundation has been supporting research projects in all fields since 1962. Highly qualified postdoctoral researchers working in innovative research areas can receive funding, for example, through a Lichtenberg Professorship.
www.volkswagenstiftung.de/funding
(English, German)
11. What do I need to bear in mind when I arrive in Germany?

Germany is situated in the heart of Europe. In Germany, as in all member countries of the European Union (EU), EU citizens enjoy freedom of movement. That means they can study and work here and do not need a visa or any other form of entry clearance. Anyone who enters the country from outside the EU or another country of the EEA (Iceland, Norway and Liechtenstein) requires an appropriate visa. A tourist visa is not enough.

However, citizens of certain countries – including the USA, Japan and Canada – can also apply for a residence permit after entering Germany. It is important to apply for a visa in good time, because it can take several weeks to process your application.
ON ARRIVAL

After arriving in Germany you will need to go to the local **Registration Office** (or Citizens’ Services), where every new resident has to register – this also applies to EU citizens. International doctoral students from countries that are not members of the EU or the EEA must also apply for a residence permit at the local **Aliens’ Authority**. Among other things, you will require proof of admission as a doctoral student, proof of sufficient funds (e.g. scholarship confirmation) and proof of **Health Insurance** cover. A residence permit is always only valid for a limited period. You must therefore ensure you apply for an extension before the permit expires.

HEALTH INSURANCE

You also need health insurance cover to enrol at university. All students in Germany – including doctoral students – must have health insurance. Everyone employed under a normal contract of employment is automatically covered. Everyone else – if they are not from an EU country – must insure themselves (normally with a private health insurance company). There are usually special rates for doctoral students. Student Services can provide further information. Some countries, including all EU countries, have concluded social insurance agreements with Germany. Citizens of these countries do not need to insure themselves if they do not earn any income, but they do require an insurance certificate from a German statutory health insurance fund.

LIVING IN GERMANY

In large and popular university cities like Munich and Hamburg it is particularly important to start looking for accommodation in good time. Student Services, for example, can help you look for accommodation or apply for a place in a hall of residence.

Student Services offer students with small children over 180 childcare facilities for children and infants. These facilities are generally located on the university campus or at halls of residence and their opening hours and educational principles are oriented to the needs of student parents.

Anyone who lives and studies in Germany also needs a **Current Account**. You can open one at any bank or Sparkasse – as a rule, free of charge.

You can receive guidance and assistance about settling in from student representative bodies at the university and departmental level as well as from the International Office. Municipal “Welcome Centres” also help outside the university. If you face financial hardship, the hardship funds of Student Services or the Students’ Union Executive Committee can help with a temporary loan.
PRACTICAL ADVICE
Initial information about the residence and employment requirements that need to be met for a career in Germany is offered by the Research in Germany website. The “Research Stay” section outlines the most important details about work permits, social insurance contributions, taxes and HEALTH INSURANCE. It also offers links that take you to up-to-date information about the respective subjects.
www.research-in-germany.de/career
> Research Stay (English)

The Deutsches Studentenwerk website has a section called “On arrival” that has brought together a large amount of information about how to make a smooth start in Germany. It also offers important facts about employment, insurance, residence permits, etc.
www.internationale-studierende.de
(English, German)

CHILDCARE
Students with children will find more than 180 childcare centres offered by 52 Student Services. You can discover more about locations, opening hours, educational objectives and other details by clicking on the links to the local Student Services provided on this German-language website.
www.studentenwerk.de
> Beratung und Soziale Dienste
> Kindertageseinrichtungen (only in German)

INTERNATIONAL OFFICES
The German Academic Exchange Service (DAAD) database lists the International Offices at German higher education institutions. They provide help and advice on dealing with central questions of university and everyday life.
www.daad.de/aaa
(English, German and other languages)

POINT OF CONTACT
The Europe-wide EURAXESS network also offers a series of service centres in Germany for internationally mobile researchers at research institutes and universities. They provide contacts for foreign researchers who are interested in a research stay at the corresponding institution.
www.euraxess.de
> Services Centres (English, German)
Important links

**RESEARCH IN GERMANY**
The Research in Germany website aims to introduce visitors to the German research scene and provide information about the German research and funding landscape as well as career and research opportunities in Germany. It also offers practical advice on a research stay in Germany, the latest news from the world of German research and much more.

[www.research-in-germany.de](http://www.research-in-germany.de)  
(English, partially German)

**PHDGERMANY**
The German Academic Exchange Service (DAAD) database at [www.phdgermany.de](http://www.phdgermany.de) publishes opportunities to do your doctorate at German universities and research institutions which are designed especially for applicants from abroad. By entering your criteria you can narrow down your search for suitable doctoral positions or supervisors. You can then apply directly online for the offers via the DAAD portal.

[www.phdgermany.de](http://www.phdgermany.de)  
(English, German, the website will be launched in autumn 2010)

**EURAXESS GERMANY**
The German EURAXESS website delivers important information for internationally mobile researchers on subjects such as funding programmes and job vacancies as well as practical advice on social insurance in Germany or tax issues.

[www.euraxess.de](http://www.euraxess.de)  
(English, German)

**KISSWIN.DE**
Kisswin.de is a communication and information platform for young researchers. The website does not only provide information about research career paths and funding opportunities, but also offers written and telephone-based guidance from experts.

[www.kisswin.de](http://www.kisswin.de)  
(English, German)

**DAAD – INTERNATIONAL PROGRAMMES**
International Programmes in Germany is a database on the German Academic Exchange Service (DAAD) website that enables you to conduct searches for structured doctoral programmes. All the programmes listed are interesting for international doctoral students, because they are offered in English (or another major foreign language).

[www.daad.de/international-programmes](http://www.daad.de/international-programmes)  
(English, German and other languages)

[www.daad.de/ipid](http://www.daad.de/ipid)  
(German)

**COMPASS FOR DOCTORAL OPPORTUNITIES**
Initiated by the German Rectors’ Conference (HRK), the Higher Education Compass online database facilitates precise searches for doctoral opportunities at German universities.

[www.higher-education-compass.de](http://www.higher-education-compass.de)  
> Doctoral Studies (English, German)
Doctoral regulations (Promotionsordnung)
They contain the most important subject and department-specific rules governing the award of a doctorate. These include, for example, admission to the doctoral process, the requirements for admission, rules governing the submission of the doctoral thesis and the structure of the oral examination.

Doctoral student colloquium (Doktorandenkolloquium)
A forum for the doctoral students of an institute or department organised as a seminar. This is where students’ work and findings are presented and discussed.

Excellence Initiative (Exzellenzinitiative)
A government funding programme for outstanding institutions of higher education worth 2.7 billion euros until 2017. Until now support has been awarded to 39 graduate schools for young up-and-coming researchers, 37 centres of excellence in specific research disciplines (so-called “excellence clusters”) and the research development plans of nine select universities (LMU and TU in Munich, TH Karlsruhe, RWTH Aachen and the universities in Konstanz, Göttingen, Heidelberg and Freiburg as well as FU Berlin).

Health insurance (Gesetzliche Krankenversicherung)
Part of the German social insurance system. Everyone in Germany must have health insurance cover and is therefore obliged to seek membership of a statutory health insurance fund. You are exempted from this obligation if your income exceeds a specific level or you are a civil servant or a self-employed person. It is then possible to transfer to a private health insurance scheme.
**LÄNDER**
Germany is a federation of 16 Länder or states. Among other things, the Länder are solely responsible for cultural policy, including higher education, which means each Land can determine its own policy on matters such as university funding or tuition fees.

**Refectory**
(Mensa)
Refectories at universities and colleges in Germany are usually run by Student Services and are generally referred to as the Mensa, which derives from the Latin word for table.

**Registration Office/Citizens’ Services**
(Einwohnermeldeamt/Bürgerservice)
Administrative agencies of cities and municipalities where everyone has to register on arrival in Germany and following any change of address.

**Research associate**
(Wissenschaftlicher Mitarbeiter)
Research associates are members of staff at universities or research institutes who, for example, work in research projects, organise seminars or perform administrative duties. They are frequently young researchers who are working on their doctorates or conducting postdoctoral research. These posts are usually temporary.

**Right to award doctorates**
(Promotionsrecht)
This right entitles an institution of higher education to set doctoral examinations and award doctoral degrees. It is a privilege of universities and other higher education institutions of the same standing. As a result, research institutions cannot award degrees to their doctoral researchers themselves, but must collaborate with a university to do so.

**Rigorosum**
Generally this is a non-public oral examination of the doctoral candidate’s academic qualification. Usually this does not only involve scrutiny of the subject of the doctoral thesis, but also additional, wide-ranging thematic areas of the academic subject.

**Semester fee**
(Semesterbeitrag)
A fee that students have to pay to the university or college (roughly 75 to 250 euros per semester). This fee should not be confused with the tuition fees that are levied in some German Länder; generally, tuition fees do not need to be paid by doctoral students.

**Third-party funded project**
(Drittmittelprojekt)
Research project financed by funds from outside the university (third-party).
About Research in Germany

The Federal Ministry of Education and Research (BMBF) launched the initiative to “Promote Innovation and Research in Germany” in 2006. Under the brand “Research in Germany – Land of Ideas” various promotional measures and events presenting German innovation and research in key international markets have been organised on behalf of BMBF. The initiative seeks to strengthen and expand R&D collaboration between Germany and international partners.

The following “Research in Germany” publications are available at www.research-in-germany.de/downloads:

– “FAQs – Preparing your research stay in Germany”
– “German Funding Programmes for Scientists and Researchers”
– “The German Research Landscape – Who does research in Germany?”
– “Discover how you can realise your ideas with Europe’s leader in science”
– “Welcome to Nanotech Germany”
– “Keeping the Blue Planet Green”

We hope that our brochures will help you prepare for your research stay in Germany. For more information about “Research in Germany”, please visit our website at www.research-in-germany.de and subscribe to our bimonthly newsletter at www.research-in-germany.de/newsletter.

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