



DOING A PHD --- IN GERMANY



AN INITIATIVE OF THE



Federal Ministry
of Education
and Research

Research in
Germany



Land of Ideas



USING AUGMENTED REALITY TECHNOLOGY TO WATCH VIDEOS

Photos marked with the play symbol can be quickly turned into videos:

- 1.** Visit the App Store or Google Play and download the free "AR Kiosk" app onto your mobile device.
- 2.** Launch the app and hold your mobile device over the image with the play symbol.
- 3.** The video will begin automatically as soon as the app has recognised the image.

www.research-in-germany.org
www.research-in-germany.org/newsletter
facebook.com/research.in.germany
twitter.com/ResearchGermany
linkedin.com/company/research-in-germany

Learn how to write a proposal and obtain further important information in our online course: How to apply for a PhD in Germany
www.research-in-germany.org/phd-course

WELCOME!

Want to do your PhD in Germany? Good idea! Find out here how others have managed it, and how best you should approach it.



Why Germany?

4



The German doctorate

8

Requirements for doing a PhD

10

Choosing the right PhD path

14

Where can I do a PhD?

19

Getting started

24



PRACTICAL INFO

28

How much will it cost?

30

How can I fund my doctorate?

33

What else do I need to know?

36



WHY GERMANY?



VIDEO

Check out our video and learn why Germany is a great place to do your PhD

A good choice

Why do a PhD in Germany? Almost all international students agree: it is the **excellent reputation** of German institutions and the **quality of their research** that make all the difference.

Elizabeth Yuu (24) from the USA is also happy about her decision to complete her PhD in Germany. She is enrolled at the FU Berlin and is conducting research at the renowned Robert Koch Institute. For Elizabeth, coming to Germany was a logical decision: “Germany is known to have some of the top leaders in research, it has many excellent tech companies and it is one of the strongest countries in the world.”

EXCELLENT UNIVERSITIES

Elizabeth has already mentioned some important reasons to opt for Germany: including for example the many excellent opportunities available for researching on an international level. In Germany, doctoral students can do a PhD at more than 150 **universities**.

Among these are not only **state universities**, but also a number of **private universities**. The more than 200 **universities of applied sciences**, which focus more on practical applications, do not have the right to award doctorates themselves but cooperate with other universities to enable their graduates to study for a doctorate.

OUTSTANDING RESEARCH INSTITUTIONS

Besides the country’s universities, the numerous **non-university research institutions** are another important part of the German



Countries with the most doctoral graduates

Each year, roughly 30,000 graduate students complete a doctorate in Germany – far more than in any other European country.

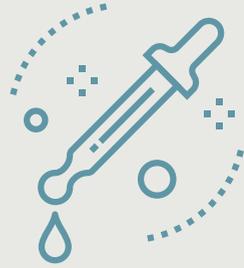
United States	69,525
China	55,151
Germany	29,303
Russia	27,212
United Kingdom	27,009
India	25,095
Japan	15,804

2016; source: OECD

research landscape. Around 1,000 state and publicly-funded institutions conduct research outside industry and higher education. These include such renowned organisations as the Fraunhofer-Gesellschaft, the Helmholtz Association, the Leibniz Association and the Max Planck Society, not to mention of course the Robert Koch Institute where Elizabeth is conducting her research.

Most of the research carried out in Germany takes place in **the private sector**, however. It accounts for a good two thirds of the money spent on research and development. Many companies offer outstanding opportunities for young researchers. Like the non-university research institutions, they cooperate with universities – not only on specific research projects but also when it comes to supervising doctoral candidates.

FIVE REASONS WHY



1. Germany has great universities and research institutions



German universities are considered to be some of the best on the planet. And Germany's industry and public research organisations are among the world leaders in many sectors.



2. Research is international and interdisciplinary

Here you can work with researchers from all over the world on all kinds of projects, including many that are interdisciplinary in nature.



3. There are no tuition fees

As an international doctoral student, you will not be charged for tuition at public universities.



4. You can do your PhD in English

You can write your thesis in English at most faculties.



5. Life is good in Germany

Despite its high quality of life, the cost of living in Germany is comparatively low by international standards.

NO FEES

And there is more good news: international doctoral students **pay no tuition fees at public universities**. What is more, the cost of living in Germany is comparatively low by international standards.

A GOOD PLACE TO LIVE

Nonetheless, Germany is one of the world's most attractive countries. This should come as no surprise given that Germany is ranked fifth out of 189 countries in the international Human Development Index. One of the largest national economies, it is one of the safest and freest countries in the world. Germany is a **stable democracy** and a state reliably based on the rule of law. Furthermore, the **freedom of science** and research is enshrined in the constitution.

Another advantage is that Germany, being a member of the European Union, offers researchers visa-free travel to all other EU states.

WE SPEAK ENGLISH

And then there is the language: learning German is very useful when it comes to dealing with everyday life – however, doctoral students can **write their thesis in English** at most faculties. Anyone seeking a structured PhD programme will also have a large range of English-taught courses to choose from: the DAAD's database alone lists nearly 200 international doctoral degree programmes.

"HIGHLY RECOMMENDED"

More than 25,000 international doctoral students have opted for Germany and enrolled at German universities. Certainly many of them will not always have found it easy to

VIDEO



Elizabeth Yuu, (24) from the USA is a DAAD scholarship-holder and PhD student at the Robert Koch Institute, Berlin

I chose to pursue my doctoral degree in Germany because I wanted a challenging adventure. Every interaction I have, be it in an academic setting or with a person on the street, I am constantly learning and that is why I love being here. This is by far one of the best decisions I have made for myself.

cope with an entirely different culture in a foreign land, but Elizabeth offers some reassurance: "Some days are definitely harder than others, but I've survived those days and every day is a success. I'm so happy to be here and so many doors have already opened for me just by being here. I would highly recommend this amazing opportunity to everyone who wants a challenge."



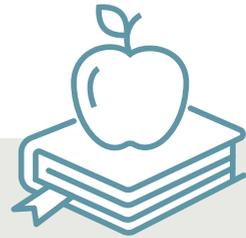
Read more about the German research landscape on:

www.research-in-germany.org/research-landscape



THE GERMAN DOCTORATE

What is it like to do a PhD in Germany? What will be expected of you, which options you will have and how you can go about it: find the most important information here.



LEARN ALL ABOUT:

What doing a PhD means

What kind of PhD
will suit you best

Where you can write
your PhD thesis

And how you can find a
doctoral supervisor

Requirements for doing a PhD

Being an advanced research qualification, a doctorate is unlike any other degree. What's more, every PhD is unique, with its own original research topic.

It can lay the foundation for a career in research, and it can also help you to develop a career outside the academic world. However, **dedication, discipline and energy** are needed to complete a doctoral degree. This is particularly true if you choose to do an individual PhD, which will require considerable independence on your part. As a doctoral student you will have a great deal of freedom, but you will also need to establish a good working pattern for yourself and keep yourself motivated – even during difficult phases.

Opting for a structured PhD will also mean being able to work on your own. Self-reliance and an ability to work under pressure are important because you will have to plan, structure and write a thesis of considerable length.

WHAT IS A PHD?

A PhD is not a course of study like a master's or bachelor's degree. Your doctorate is **evidence of your ability to conduct independent academic work**. You prove this by submitting your thesis and taking an oral exam.

The two main requirements for your **doctoral thesis** are as follows:

- It should demonstrate your ability to pursue independent academic research

- It should contribute to the advancement of general academic knowledge

Besides the doctoral thesis itself, an **oral exam** is also part of your PhD. This takes the form of either a “Rigorosum” or a “Disputation”. The difference is that a “Rigorosum” tests you not only on the subject of your thesis, but also on your knowledge of other relevant aspects of your field. By contrast, the “Disputation” revolves solely around your thesis which you defend by engaging in a kind of “argument” with the members of the doctoral committee.

 More than half of all faculties **permit “cumulative”** doctoral degrees. This means you can publish several articles in renowned journals rather than submitting just one lengthy monograph. The conditions can be found in the doctoral degree regulations.

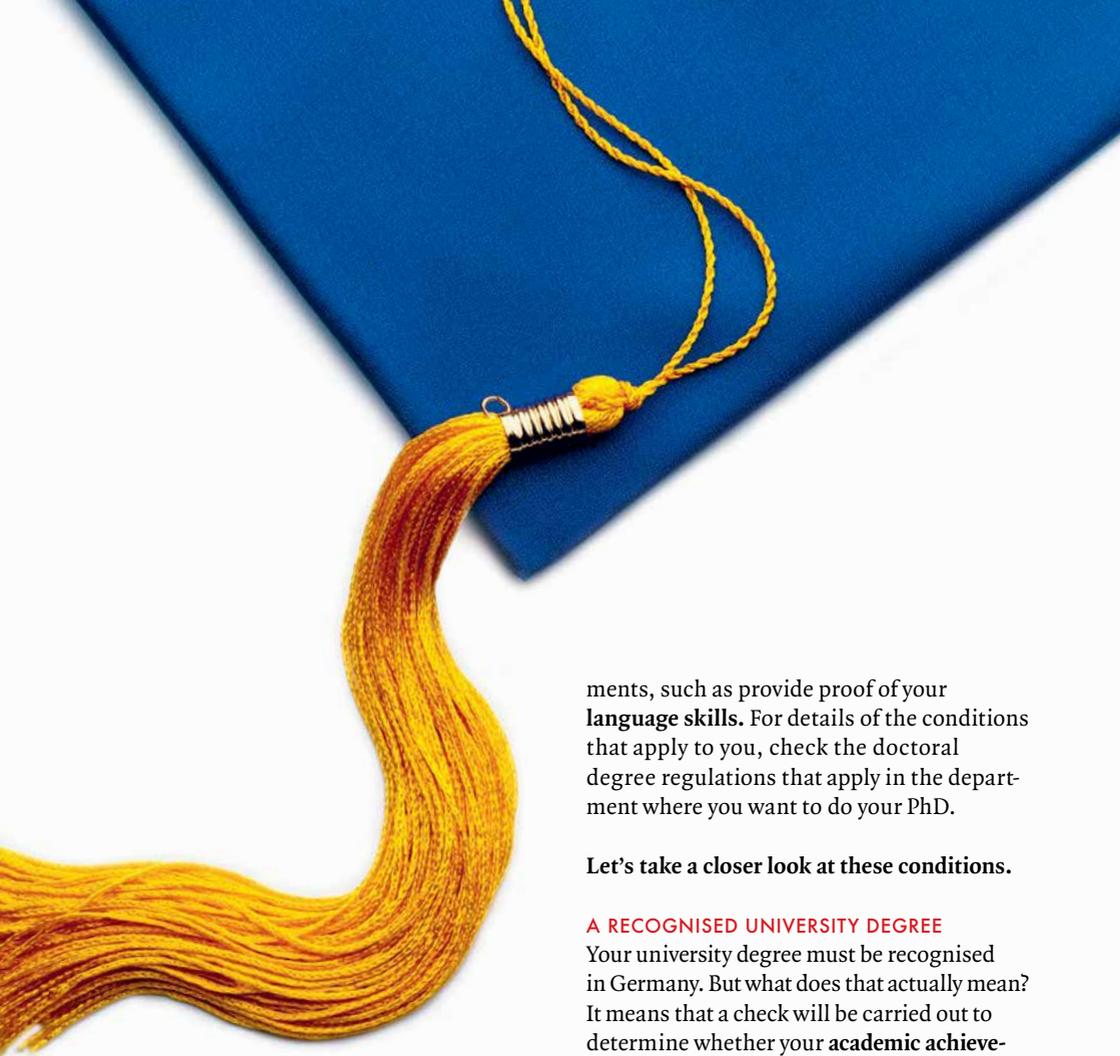
ADMISSION REQUIREMENTS

You will have to meet certain formal requirements to be admitted for a doctoral degree:

- You will need an **academic degree that is recognised in Germany**, normally a master's degree or German state examination
- The subject of your proposed thesis should be **relevant** to the degree you have already completed

There is one exception: particularly well-qualified applicants with only a bachelor's degree or with a degree from a university of applied sciences can also be admitted to a PhD programme (**fast-track programmes**).





Depending on the federal state and the doctoral degree regulations, an aptitude test or proof of specific academic achievements or exam grades may be additionally required.

In other words, by acquiring a **recognised university degree** you have already met the **main requirement** for doing a PhD in your subject.

Depending on your subject, and on the university at which you wish to do your PhD, you may need to meet additional require-

ments, such as provide proof of your **language skills**. For details of the conditions that apply to you, check the doctoral degree regulations that apply in the department where you want to do your PhD.

Let's take a closer look at these conditions.

A RECOGNISED UNIVERSITY DEGREE

Your university degree must be recognised in Germany. But what does that actually mean? It means that a check will be carried out to determine whether your **academic achievements are of equal value** to those required in Germany, or to what extent they correspond to the German conditions.

It is up to the German university in question to decide whether to recognise academic achievements and to admit a candidate for a PhD. To find out whether your degree will be sufficient, you should contact the international office or matriculation office at your chosen university. If your academic degree is not thought sufficient, you may have to take an additional exam to prove that you have the same knowledge as someone with a comparable German university degree.



LANGUAGE SKILLS

Normally you will not have to be able to speak German to do a PhD: these days, international doctoral students can write their **thesis in English** at most universities. Refer to the doctoral degree regulations to discover whether this is the case in your department.



The **doctoral degree regulations** contain all the requirements for your PhD and can be found at the departments concerned or on the university website.

However, if you do have to write your thesis in German, you may have to provide **evidence of your knowledge of German**. To this end, you will need an officially recognised qualification, e.g. the German language test for university entrance (DSH), which can only be taken in Germany. You can also prove your command of German before coming to Germany by taking a TestDaF exam or obtaining a certificate from the Goethe-Institut.

If you are going to write your thesis in English, it will depend on the university and department in question whether you will need to prove your proficiency level in English. Again, you can find all the necessary information in the PhD regulations.



Further information about doing a PhD in Germany can also be found on the information portal provided by the German Rectors' Conference (HRK):

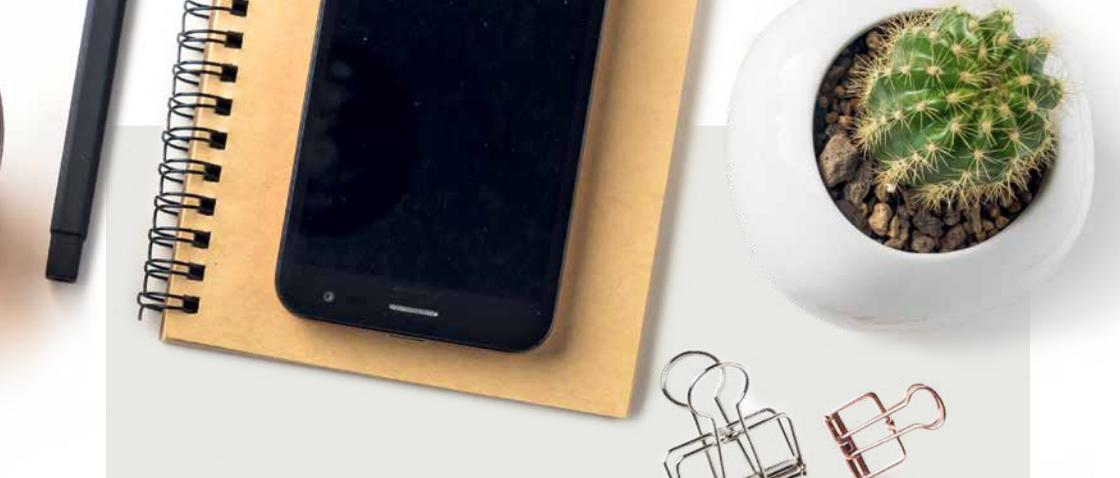
www.higher-education-compass.de



You can use the anabin database to check how your university degree will be classified in Germany, though information is not available for all degrees:

www.anabin.de (in German)





Before starting:
what do I need to check?

- Is my university degree good enough?

- Will my degree be recognised?

- Will I have to take an additional exam?

- Do I need to provide proof of German or English skills?

- Do I have to or should I matriculate?

- Does a time limit apply to the doctoral programme?

- Can I perhaps do a “cumulative” PhD?

- Which other requirements are made by the PhD regulations of my department?

Choosing the right PhD path

There is not just one route to a doctoral degree in Germany. Which suits you best will depend on various factors: such as your subject area, your research project, the university at which you want to do your PhD, and your individual circumstances.

Essentially, however, a distinction can be made between **two types of PhD**: the individual doctorate, which is very widespread in Germany, and the structured programme, which is similar to the PhD system to be found in the Anglo-Saxon world.

INDIVIDUAL DOCTORATE

Most doctoral students in Germany follow the “traditional” path. This involves finding a mentor who will approve and supervise their doctoral thesis. This supervisor is known as a “Doktorvater” or “Doktormutter” – a doctoral father or mother – in Germany.

Once you have obtained your master’s degree, you will no longer be considered a student in Germany – you will be regarded as an academic. As such, during an individual PhD you will be in contact with your supervisor but will work mainly on a very independent basis. Though this provides you with plenty of freedom and flexibility, it also **requires considerable self-discipline and good organisational skills.**

This also means that you (or your financial possibilities) will determine how long your PhD takes. That said, you should note that

23%
of PhD students
choose a
structured
doctoral
programme

Winter semester 2014/2015; source: destatis

some universities require candidates who embark on an individual PhD to enrol, and they set a limit on the total study duration, normally of three to five years. No formal deadline is set for completing your doctoral thesis, however.

STRUCTURED PHD PROGRAMME

If you like working in a team, would like to be more involved in a project and want more intensive supervision, the structured PhD programmes will be of interest to you.

The extent to which such programmes are structured differs. What they all have in common is that **a team of supervisors is responsible for the doctoral students.** The programmes generally feature a curriculum that accompanies the PhD, they are often



Doing a PhD with the best of the best

What precisely is life? How can we better understand human cognition? How can very short-wave and very long-wave light be controlled? Fundamental research questions are explored at the Max Planck Schools, which bring together Germany's top researchers.

The Max Planck Schools (MPS) are something very special. First-class researchers from different subject areas and with complementary research interests work there. The new MPS – the first doctoral students began there in 2019 – are interdisciplinary and closely networked graduate schools that interlink different sites and institutions.

Universities, the Max Planck Society, the Helmholtz Association, the Leibniz Association and Fraunhofer teamed up to create the new Max Planck Schools: consequently, doctoral students there can collaborate with the best researchers at the most attractive research laboratories.

In the current pilot phase, three Max Planck Schools have initially been established in future-oriented fields. The following MPS were launched at the end of 2018:

- Max Planck School of Cognition
- Max Planck School of Photonics
- Max Planck School Matter to Life

Outstanding university graduates from all over the world study for their PhD in a structured programme at the Max Planck Schools. Students with a particularly impressive bachelor's degree can also qualify for a fast track programme that leads to a master's degree in just two years. The doctoral degree is awarded by one of the participating universities.

www.maxplanckschools.de/en

interdisciplinary, and they usually promote the acquisition of soft skills and additional qualifications.

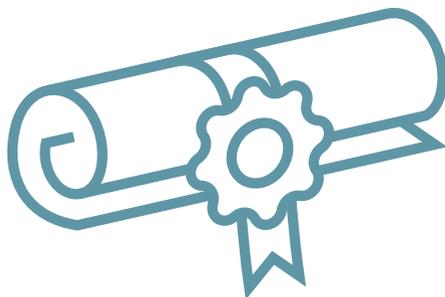
Your degree of involvement in the programme, and the number of hours you are required to participate, will depend entirely on your programme. Requirements can differ just as much with respect to acquiring credit points or any other obligations you may have: whether for example you are expected to regularly present the progress made in your research project, or may even be required to spend a period of time abroad.

All the same, **structured programmes tend to be completed more quickly than “individual” PhDs**: normally, the fact that you are involved in a specific programme and receive good supervision means that you will obtain your degree in three years.

WIDE RANGE OF PROGRAMMES

These days a wide range of programmes can be found in Germany: structured PhD programmes are available at universities, and particularly at the university-based Research Training Groups and Collaborative Research Centres funded by the German Research Foundation (DFG). In addition, there are state-government-supported programmes at individual universities, and more recently the Max Planck Schools (see Page 15) – a joint project run by universities and non-university research institutions.

At non-university research institutions, it is now almost the rule that students participate in structured and generally interdisciplinary PhD programmes: 60 International Max



Planck Research Schools, 26 Leibniz Graduate Schools, 13 Helmholtz Graduate Schools and 21 Helmholtz Research Schools offer such programmes. Students then do their PhD at the cooperating university.

INTERNATIONAL PROGRAMMES

Structured PhD programmes are particularly attractive to international doctoral students, as they often use English as their working and teaching language. Many programmes explicitly target international PhD candidates. Half of the PhD students at the International Research Schools of the Max Planck Society come from abroad.



Detailed information about doing a PhD in Germany can also be found on the Research in Germany portal:

www.research-in-germany.org/phd

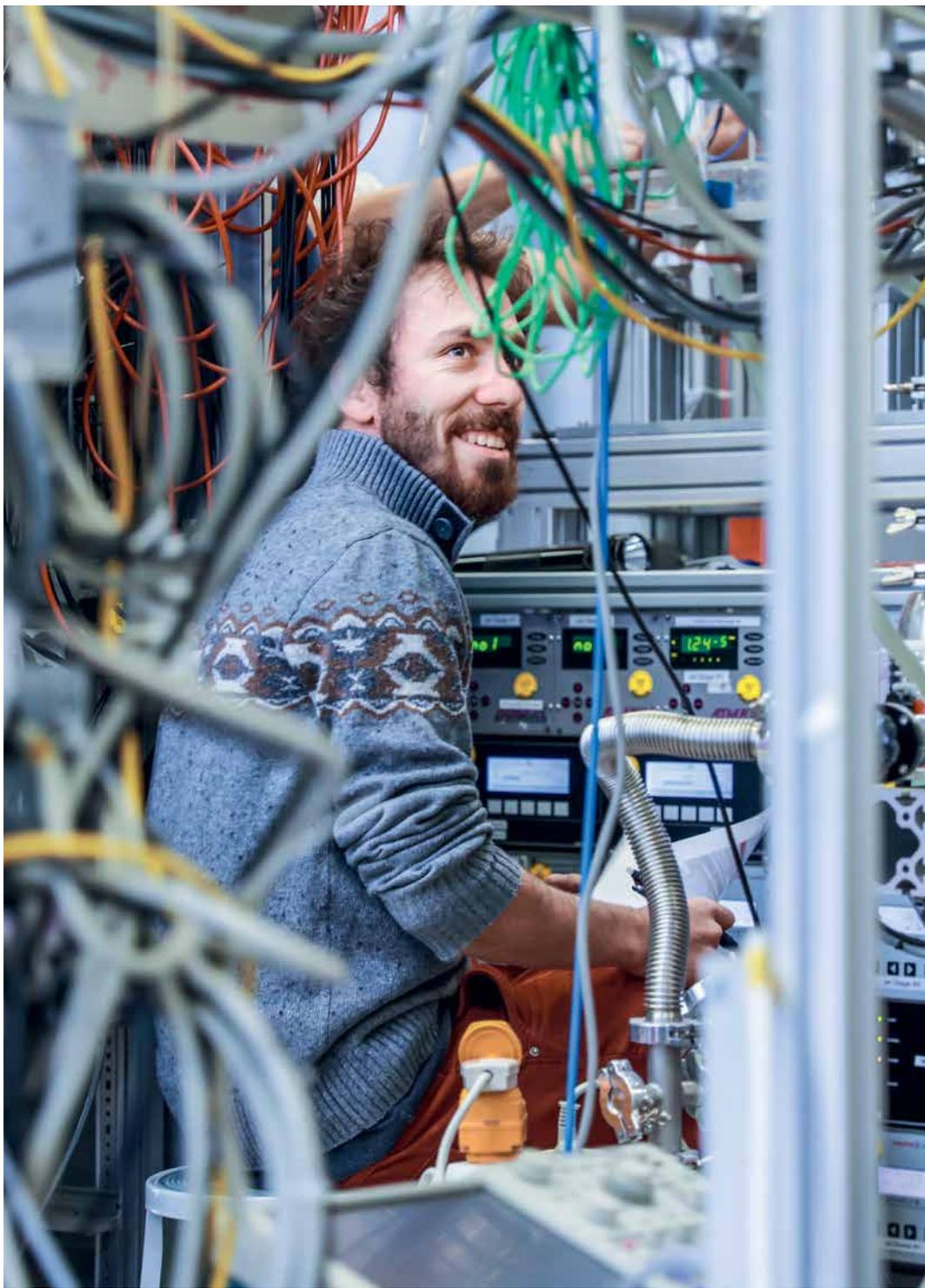
Which PhD will suit you best?

Key reasons that will help you decide

INDIVIDUAL PHD	STRUCTURED PHD PROGRAMME	PHD PROJECT IN COOPERATION WITH A COMPANY*
I want a particular professor to supervise my PhD	I have several different contact persons	I have several different contact persons
I want to be able to choose my PhD topic myself	My research topic forms part of a PhD/ research programme	My research is applied
I do not have to attend any seminars or lectures	I can take courses to enhance my specialist knowledge and improve my soft skills	I am based at a company and have good job prospects
I can manage my own time and work at my own pace	I like to work within a fixed schedule	I like to work within a fixed schedule
I can work and take decisions independently	I can share ideas and opinions with other doctoral students in similar situations	I can share ideas and opinions with colleagues
	I receive support when it comes to bureaucratic formalities such as registering or obtaining a work permit	I gain work experience while doing my PhD
	I receive support for lectures, attending conferences or publishing articles	I receive support from my employer



* It is always the supervising university that confers the doctoral degree.



Where can I do a PhD?

You can do a PhD at any **university** in Germany, as well as at a number of **special higher education institutions** that are entitled to run doctoral programmes. These include for example teacher training, music and art universities.

That said, you do not necessarily have to research and work at a university for your PhD. There are **many different ways to pursue your doctoral thesis project or research**. We present an overview.

RESEARCH AT A UNIVERSITY

The “classic” place to do a doctorate is at a university. Germany has **around 150 higher education institutions that are entitled to award doctoral degrees**: you will find programmes on offer in every conceivable subject.

There are large state universities with a wide range of international cooperation partners, graduate schools and research projects run in collaboration with non-university institutes. And then there are small, specialised universities of international renown that have close ties with other research institutes and industry.

You will of course find universities in Germany’s major cities such as Berlin and Munich, but also in smaller towns like Eichstätt and Clausthal-Zellerfeld. All over Germany, the selection is wide enough to ensure that you can find just the right university for you.

Special **doctoral positions** are available for doctoral students at universities. In this



Uday Chopra (25) from India is a PhD candidate in the INSPIRE group at Johannes Gutenberg University Mainz

I had taken part in a couple of internships in Germany during my master’s in India and in addition to the quality of research here, I was quite satisfied with the work culture.

case you will work (normally on a part-time basis) as a research associate at an institute. Besides conducting your research, you will generally have some teaching duties and will have to do some work in your faculty or department.

Another popular option is to work as a university **research associate** on a **research project funded by a third party**. In this case the focus will be on research, and you will rarely be expected to teach or engage in administrative work. Often you will pursue your research project together with other (possibly non-university) research institutions or an industry partner. Your doctoral thesis should be relevant to the research programme.

This is the path that Uday Chopra from India chose. He is a doctoral student in Professor Jairo Sinova’s Interdisciplinary

Where can I pursue my PhD project?

PLACE	POSITION	FUNDING
University	Research associate in a department	Salary
University	Research associate working on a third-party-funded project	Salary/ grant
University	Doctoral student or research associate in a research training group*	Salary/ grant
Non-university research institution	Research associate working on a research project	Salary/ grant
Non-university research institution	Doctoral student or research associate in a research school or research training group*	Salary/ grant
Company**	Research associate working on a research project in cooperation with a university or research institution	Salary
External/private	Doctoral student	Independently funded, e.g. grant

Individual doctorate: Independent work on thesis with individual supervision provided by a university professor

Structured programme: Participation in a structured PhD programme together with other doctoral candidates and supervised by a team

*The research schools and research training groups are often run jointly by universities and non-university research institutions

**Companies often offer supporting programmes for their doctoral students, too

It is always the **university** that **awards the doctoral degree**. No matter where and how you wish to pursue your PhD project, the **professors at the awarding universities** will always be responsible for supervising and assessing your academic work. If you conduct your research at a **non-university research institute or university of applied sciences**, this is known as a **"cooperative PhD"**.



Spintronics Research Group (INSPIRE) at the physics department of Johannes Gutenberg University Mainz. The subject of Uday's thesis is "Multiscale modelling of spin-Hall effect in high mobility organic polymers". This fits in very well with his work in the research group: "My doctoral work is the same as the project I'm working on in my group. A part of that project goes into my thesis," explains Uday.

You can also choose from a large number of **structured doctoral degree programmes** at universities. Some of these are run in cooperation with major non-university research organisations such as Max Planck, Helmholtz or Leibniz. The extent to which the programme is structured varies considerably, ranging from general accompanying courses suitable for doctoral students in various disciplines to highly-structured research curricula with set timetables and goals.

Universities of applied sciences also offer research projects that allow doctoral students to complete the work they need to do for their thesis. Because very few of these universities are able to award doctoral degrees themselves, they cooperate with a university. Your thesis will therefore be co-supervised by a university professor.

RESEARCH AT A RESEARCH INSTITUTE

Though most doctoral students do their PhDs as "internals" – that is to say that they are employed by the university where they are doing their PhD – the university is not the only place where you can pursue your doctoral project. Germany's four major non-university research organisations in particular promote and support young researchers.

Specifically, this means you can apply to the Max Planck Society, the Leibniz Association, the Helmholtz Association or the Fraunhofer-Gesellschaft for a **PhD position or PhD scholarship**. Doctoral positions are also available at other public or state research institutes, however, such as the Robert Koch Institute in Berlin at which Elizabeth Yuu is conducting her research. If your subject matches the institute's research profile, you can write your thesis there. To this end, the institutes and centres cooperate with universities.

This was the option that Lisbeth Ramírez Caballero picked. She is 28 years old and comes from Mexico. She has been in Germany since 2014 and did her master's degree



Lisbeth Ramírez Caballero
(28) from Mexico is doing research at Fraunhofer. She is part of the Fraunhofer TALENTA support programme for young female scientists

Research is in any case a rewarding experience, but I feel particularly motivated knowing that the results of the project may have a big impact on the design of immunotherapies in the future.

here. Now she works at the Ligand Development Unit at the Fraunhofer Institute for Cell Therapy and Immunology in Leipzig. How did this come about? “After completing my master’s thesis, I was offered the chance to continue working on an exciting, but also challenging project. This offer also included being part of a support programme for young female scientists. The programme offered guidance for the development of hard and soft skills. I did not hesitate to accept this opportunity,” explains Lisbeth.

Working as a PhD at Fraunhofer means being part of an applied industry-oriented research project, which is exactly what Lisbeth likes about it. That is because her research will help solve real-life problems.

The Helmholtz Association, the Leibniz Association and the Max Planck Society run their own **graduate schools** and **research schools** for their doctoral students, where they take part in a structured PhD programme. The programmes are research-centred, offer accompanying curricula and allow you to complete your thesis in three years.

RESEARCH IN INDUSTRY

Germany has many industrial companies that pursue high-level research, often in cooperation with non-university research institutes and universities. What this means for you is that you can be employed by a company and work on a **research project**, while at the same time writing your PhD. It is particularly companies in highly intensive research sectors such as the automotive industry that cooperate with universities and offer doctoral students employment contracts and support on their path to a doctorate.

PHD STUDENTS BY EMPLOYER

University **64%**
 Non-university
 research institute **5%**
 Industry **5%**
 Other employers **9%**
 No employment contract **7%**



16% of PhD students received a scholarship;
 Winter semester 2014/2015; source: destatis

This model closely combines professional experience with application-oriented research. The subject of your thesis must be a good fit with the company. All the same, you will need a supervisor who is authorised to support PhD students. Ideally, you will already have found a suitable supervisor before applying to the company. Some companies may help you find one, or may already be cooperating with a particular university. You can then submit your thesis at that university.

A PHD WITH A PART-TIME JOB

If you do not work at the university at which you are doing your PhD, you will be considered to be an “external” – regardless of whether you are working at a non-university research institute, a university of applied sciences or a company. You will also be doing your PhD externally if you earn your money by working part-time or if your thesis is being funded by a scholarship and you work on it at home. As with all PhDs, it is essential to have a university that will accept your thesis and a professor who will act as your supervisor. That said, this path is more difficult than being part of a research environment that will support you as you write your thesis.



VIDEO

Watch this video and learn which path to your doctoral title could be the right one for you!

Getting started

Once you have decided where and how you want to do your PhD, it is time for the most important step: **finding the right supervisor** or the **doctoral programme** that will suit you best.

A SUPERVISOR FOR MY INDIVIDUAL DOCTORATE

You should invest some time and energy in finding a suitable supervisor for your PhD – after all, he or she will be one of the most important people for you over the next few years.

First you should consider what matters most to you: where will your research project be in the best hands? Is there a particular expert you would most like to work with? Is there a university or research institute that has special relevance to your project or your topic?

SEARCHING ONLINE

After answering these questions, your first step could be to **search online**. The best way to do this is to enter some key words related to the subject of your research, combined for example with the words “professor” and “Germany”. You will probably find more results – and more useful results – if you search in German.

When checking the results, you are likely to find some further information about the research activities pursued by the academics in question. With a bit of luck, you may even come across details of job or PhD vacancies.

You can make your online search more specific if you are already familiar with



Professor Rainer Fink

teaches physical chemistry at the Department of Chemistry and Pharmacy at Friedrich-Alexander-Universität Erlangen-Nürnberg

I consider personal contacts to be most fruitful. Professors at your home institution usually have a network of international researchers they have met in person at conferences or workshops. Your present supervisor may be able to give the best advice and initiate contact with a professor abroad. You may also consider which articles inspired you the most during your education. Check the recent publication records of the respective authors and find out if their present research matches your personal interests. You may also check if the professors have international students in their group. Don't be afraid to contact them and ask about their personal experience.



interesting authors in your field from academic literature. In this case, you can gather further information about the authors and their research.

FIND THE RIGHT INSTITUTE

Another approach is to search for a suitable institute at a university. Here you will find academics who are familiar with the topic of your research. However, a non-university research institution relevant to your field can also be a good starting point for your search, as many supervisors at research centres are also employed by a university and are authorised to confer a PhD degree.

You may also find that **your own university lecturer** or university can put you in touch with a relevant department or specific professor.

CONTACTING A POTENTIAL SUPERVISOR

Once you have picked a potential supervisor, you will need to contact him or her and **present your proposed doctoral project**. They will want to know from you which subject you studied at which university, and how good your degree was. The topic of your master's thesis will also be important, as will the area in which you wish to specialise.

When applying to your potential supervisor, you should be able to submit a properly thought-out **PhD research proposal** of your doctoral thesis. This should provide a clear and detailed description of the research question you wish to address, and explain

how you plan to proceed in practice. You should also be able to illustrate the relevance of the topic, and describe the state of current research. The proposal should also include a **timetable** and a **bibliography** of relevant literature.

What else you will need for your application is detailed in the checklist on page 27.



The online GERiT database of more than 25,000 research institutions will help you with your search: www.gerit.org

PhDGermany has PhD openings specially targeted at international doctoral students: www.phdgermany.de

You can find funded doctoral positions on the website of the German Research Foundation (DFG): www.dfg.de/positions_funded_projects

You can also use the Higher Education Compass to discover which university is a good fit for your research project. It provides links to faculties, together with details of contact persons and other information: www.higher-education-compass.de



It is also important to make it clear why you personally are interested in your research topic. Professor Rainer Fink from the Universität Erlangen-Nürnberg receives 10 to 15 applications from potential doctoral students each month. “Most emails give the impression of messages sent out to many recipients,” observes Professor Fink, an expert in physical chemistry. “It would be better if the applicants could specify their motivation to join my research group. Their research skills should fit our research portfolio.”

THE RIGHT STRUCTURED PROGRAMME

These days there are many structured PhD programmes in Germany. They are offered

as PhD programmes run by individual or several cooperating universities

at (international) graduate schools funded by the German Research Foundation (DFG)

at Collaborative Research Centres

as PhD programmes at non-university research institutes

Many programmes are targeted specifically at international candidates and are run entirely in English.

Furthermore, the programmes differ in terms of their funding and staffing, and

TIPS FOR YOUR INTRODUCTORY EMAIL

Show that you are well-informed: that you know about the doctoral programme or the potential supervisor’s research field and that you know what to expect

- **Be concise, but also be precise and informative:** your potential supervisor will normally be very busy and get many emails and letters every day
- **Be accurate:** make sure your email or letter does not contain any grammar or spelling mistakes
- **Demonstrate your interest:** avoid impersonal emails and letters
- **Be cautious:** do not ask the professor about funding in your first email



some have more scope for supporting their PhD students than others. It is worth conducting thorough research, in other words.

 As yet, no single database covering all structured PhD programmes exists. Nonetheless, it is easy to find the different options online, for example via university or research institute websites. Or take advantage of the databases offered by the DFG or DAAD: www.dfg.de > [Research Training Groups](#) www.daad.de/international-programmes



APPLY FOR A PLACE

After you have found your PhD programme or the right institution, you should invest considerable time and care in **preparing your application**. Sometimes there are application deadlines for the programmes, so make sure to begin your research well before finishing your degree.

Normally, you will first contact the person responsible via the programme's website. The application process will often involve several stages. If your application makes a good impression, you will be invited to attend an interview, though this may sometimes be conducted by phone.

WHAT IS THE NEXT STEP?

Once your supervisor has given his or her approval, the department or doctoral committee in question must accept you as a doctoral student. At some universities, this is the time you will have to apply to be admitted for the doctoral examination.

And although it is usually not necessary, it may be an advantage – even if you have chosen to do an individual PhD – to enrol on a **doctoral programme** at a university.



For information about admissions to doctoral studies for candidates with degrees from foreign universities, contact the International Office at your university.



TIPS FOR YOUR APPLICATION

Whether you are applying for an individual doctorate or a PhD in a structured programme, have all application documents ready:

- A research proposal
- Your curriculum vitae
- Any documents substantiating the information in your CV, e.g. a certified copy of your master's degree certificate
- A letter of motivation
- A letter of support or recommendation
- An email for establishing first contact with the potential supervisor or structured doctoral programme

Free online course



Not quite sure whether you will manage? We are here to help – learn how to write a proposal and obtain further important information in our online course:

How to apply for a PhD in Germany
www.research-in-germany.org/phd-course



**PRACTICAL
INFO**

If you want to get to know new countries and achieve something there you will need some practical support. Here is some useful information to make planning easier for you.



You can find the most important information about entry requirements, work, insurance, finances, family and living at:

[www.research-in-germany.org/
plan-your-stay](http://www.research-in-germany.org/plan-your-stay)

How much will it cost?

Once you have decided in favour of Germany, you will no doubt want to know how expensive life here is, and how you will be able to support yourself financially.

Germany is a prosperous country and one of the world's largest economies. Nonetheless, **life here is relatively inexpensive:** if you compare the cost of living in major German cities with other cities around the world, you will find it is not all that high – or even pretty low. For instance, Munich may be the most expensive city in Germany, but worldwide it is only ranked 70th, whereas Berlin is not even among the world's one hundred most expensive cities.

BIG DIFFERENCES

There are two things to take into account, however: firstly, there are big differences within Germany. **Life in a major city is more expensive than in the countryside,** for example, and the eastern part of Germany is cheaper than the west. This is something that Lisbeth Ramírez Caballero can only confirm. She is doing her PhD at Leipzig University in cooperation with the Fraunhofer IZI, where she also did her master's degree: "I've lived in cities that used to be part of East Germany, and therefore living costs are very affordable even on a PhD student salary."

How expensive life is depends to a large extent on what it costs to rent somewhere to live. Rents have risen sharply in recent years, especially in big cities. Ultimately, the costs of a flat will of course be dictated by its location and the quality of its equipment. Generally speaking, however, you can expect



Trevelyan Wing (28) from the USA is doing a doctorate at Heidelberg University

My master's dissertation focused on the German energy transition (or 'Energiewende') and, when I decided to continue that project as a PhD student, coming to Germany was a logical next step. And Germany is a wonderful place to live! Quality of life is high, the cost of living very reasonable.



to spend a **good third of your income on a place to live**.

On average, Germans pay roughly 900 euros per month to cover living costs plus energy and service charges. Students normally live much more cheaply, and spend on average 323 euros per month for rent and utility bills – international students spend a little more, namely 338 euros.

MATRICULATING CAN HELP

Besides rent, your biggest expenses will be food and mobility. It is therefore a good idea to matriculate at your university, even as a doctoral student, as you can then buy subsidised meals at the **university canteen**. The semester fees also usually include a **student ticket** that allows you to use public transport either for free or at a much reduced price.

And it is hugely beneficial in financial terms that you do not have to pay any **tuition fees** if you do your PhD at a state university. That is a very big difference as compared with other host countries such as the UK or the USA.

How much life costs for students



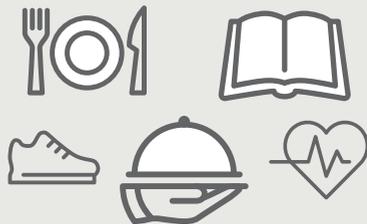
Place to live	323 euros
Food	68 euros
Mobility	94 euros
Health	80 euros
Leisure, culture	61 euros
Clothes	42 euros
Communication	31 euros
Study materials	20 euros

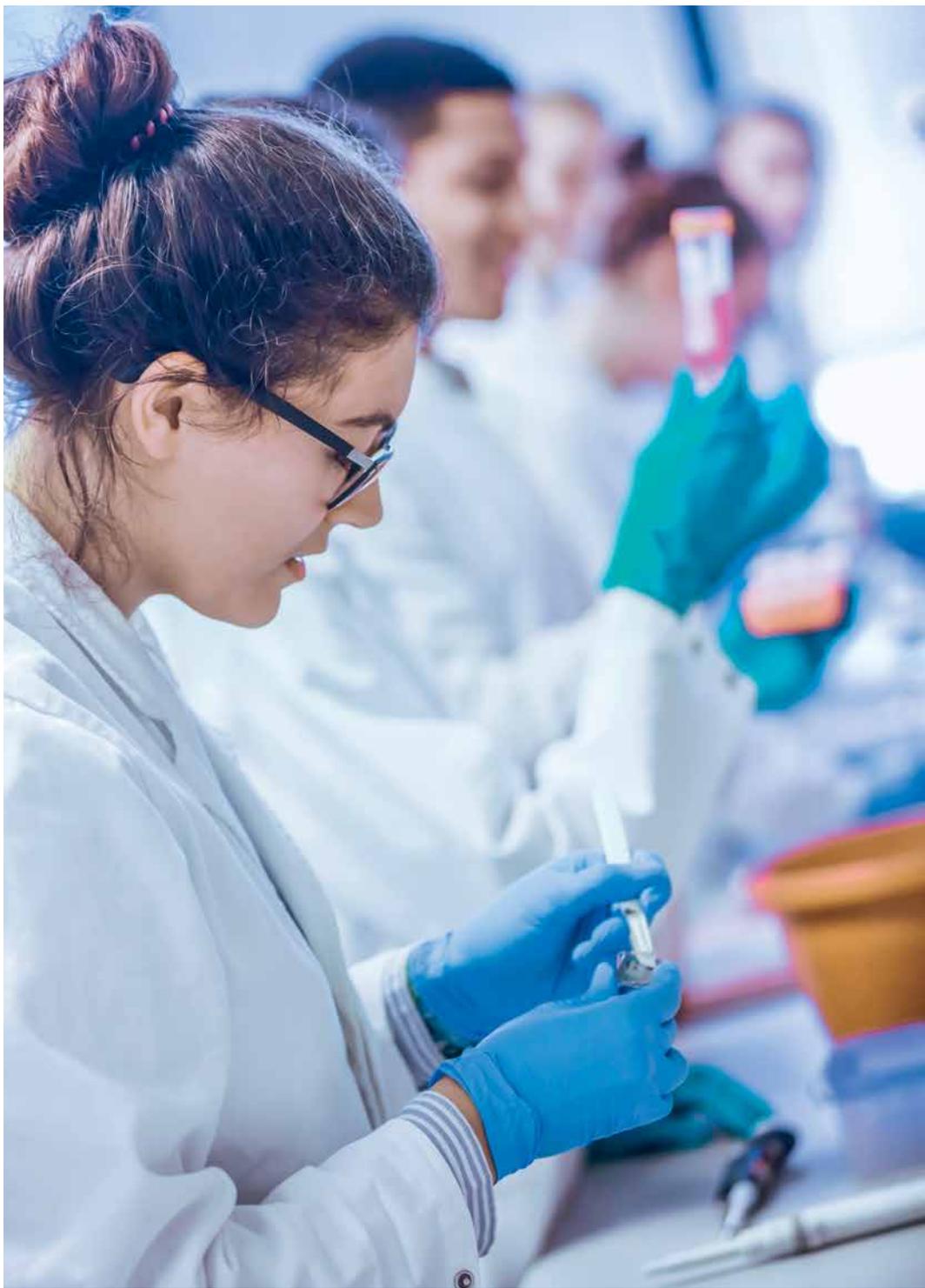
= 819 euros

Essential monthly expenditure
2016, averaged, typified,
see: www.sozialerhebung.de

The average student in Germany
has **918 euros** per month to live on.

Source: DSW/DZHW





How can I fund my doctorate?

International doctoral students are not charged tuition fees in Germany. Nonetheless, how to fund a doctorate is an important question. On the following pages, we present the different ways in which doctoral students can finance their PhD.

SCHOLARSHIPS FOR INTERNATIONAL DOCTORAL STUDENTS

A scholarship is the ideal option for international doctoral students: almost half fund their PhD in this way. On average, a **doctoral scholarship is worth 1,139 euros per month.**

If you have a good university degree and positive references, you can apply for one of the numerous funding programmes for international doctoral students: you can either apply for an **individual grant** that will give you the freedom to choose for yourself how and where to do your PhD. The biggest provider of such individual scholarships is the German Academic Exchange Service (DAAD). Alternatively, you can apply for a **project-related scholarship**, for example at a research institute.

INDIVIDUAL FUNDING

Elizabeth Yuu opted for an individual grant. She is a doctoral student at the FU Berlin and works at the Robert Koch Institute. It was during an internship in Germany that she discovered that DAAD scholarships are available. And luckily she also received some valuable support there: “One of the things that helped me the most was having two advisors in Germany who had previously had other doctoral students on scholar-

“If you think your proposed project has merit, apply! DAAD scholarships are of course highly competitive, but the potential reward is well worth the effort.”

Trevelyan Wing,
DAAD scholarship holder

ships.” Even so, it was not all that easy: “They specifically told me how competitive this scholarship is. I had written a total of eight different proposals before my advisors decided that the final one was the strongest.”

FOUNDATIONS ALSO OFFER SCHOLARSHIPS

Germany’s major organisations for the promotion of young talent likewise offer scholarships for highly qualified international doctoral students. To qualify, you must have been **admitted for a PhD** at a

The average
monthly income
of unmarried
international doctoral
students is

1,200
euros

Source: DSW/DZHW

German university. In addition, there are many smaller foundations and scholarship programmes run by the individual universities or federal states. They grant scholarships that are tied in some cases to specific subjects, states or projects.

PROJECT-RELATED SCHOLARSHIPS

Certain doctoral positions at research institutes, graduate schools or collaborative research centres at universities also come with a scholarship. For this type of position you will need to apply directly to the graduate school or to the head of the research project that interests you.



Information about the scholarships that are available can be found at:

www.research-in-germany.org/funding

www.funding-guide.de

www.stipendiumplus.de

www.dsz.de/foerderung (only in German)

www.stipendienlotse.de (only in German)

PAID PHD POSITIONS

Apart from scholarships, the best way to earn money is by getting a job – and this also holds true for international doctoral students. More than 40 percent of them work while they are doing their PhD. Of course the ideal situation is if you can do work that also helps you progress with your doctoral studies.

WORKING AS A RESEARCH ASSOCIATE

This is the case for example if you are employed as a research associate in **your supervising professor's department**. Such positions are temporary and often involve working two-thirds of a normal week. In addition to your doctoral thesis, you will normally have some teaching to do, as well as certain administrative duties. This may prove helpful later on if you wish to continue researching and teaching at the university after completing your PhD.

Research will be the focus if you apply for a position in a (third party-funded) **research project**. This may be based directly at the institute at your university, at a graduate school or as part of a doctoral degree programme at a collaborative research centre.

Doctoral positions can also be found at numerous **non-university research institutions**. They also offer their doctoral students temporary employment contracts – usually on a part-time basis.

A FUNDING MIX IS NOT UNUSUAL

It is not unusual for doctoral positions in science and research to have more than one source of funding. For example, a funding programme might cover some of the costs of

an employment contract, or a doctoral student will have a scholarship as well as a paid position.

This is the situation for Lisbeth Ramírez Caballero from Mexico. She is an independent PhD student at Leipzig University and is conducting research at a Fraunhofer institute. Her research is funded by research group grants and by the Fraunhofer Talenta programme. This additional support is ideal for her: “This support programme for young female scientists gave me the chance to develop my hard and soft skills.”



Doctoral positions can be found at:

www.phdgermany.de

www.euraxess.de

www.dfg.de/positions_funded_projects

RESEARCH JOBS IN INDUSTRY

Doctoral positions can also be found in industry. Research-based companies in particular – such as those in the automotive industry – are keen to recruit doctoral students. In this case you will normally have a temporary contract and work on a part-time basis. You can pursue research that is industry-relevant and application-oriented, and will have **good job prospects once you have finished your PhD.**

NON-RESEARCH-BASED JOBS

Of course, it is possible to do a PhD in your free time while working full-time and





without the support of your employer – though this is by no means an easy option.

If you do not fall into any of the above categories, you can also get a part-time job to cover your living expenses or to supplement your scholarship. The student organisation at your university may be able to help you find a part-time job.

 Doctoral students from the European Economic Area or Switzerland do not require a work permit in Germany. Non-EU citizens may have to observe certain restrictions, depending on the type of residence permit they have – the number of days they are permitted to work may be limited, for example. In any case, you should obtain permission from the immigration office and/or the Federal Employment Agency before beginning a job.

What else do I need to know?

THE GERMAN LANGUAGE

Pretty much everyone agrees: “Usually one can get away without learning German as **everyone speaks English within the university**,” notes Uday Chopra, a doctoral candidate at Johannes Gutenberg University in Mainz. “However, it’s always useful outside, for example when going shopping or travelling.” And depending on where you live, being able to speak German may play an important role after all – at least outside the university or laboratory where you work. Certainly this is what Lisbeth, who is doing her PhD in Eastern Germany, found: “Speaking German has been essential in my everyday life.”

“THE FIRST LESSONS ARE THE HARDEST”

In other words, it is better to get at least a basic command of German. But how difficult will that be? “As a Spanish native speaker, **learning basic German is not as difficult as people usually think**. However, it takes time and lots of patience to develop a more elaborated vocabulary,” explains Lisbeth. And Elizabeth, who lives in Berlin, is really pleased by

how well she has managed to learn German: “I love learning new languages and I try to fully immerse myself in the German language with German lessons, the radio and movies, and I even take classes at the gym in German. I’ve embraced the language and feel more independent when I can ask and do things by myself.” **So it is worth making the effort** and Uday has some encouraging words to add: “The first few lessons are the hardest part of learning the language, it gets easy after that.”

AFFORDABLE LIVING

The second issue is finding somewhere to live – which may not be all that easy. The problem is that rents have risen significantly in recent years, and there is a shortage of affordable accommodation.

It is therefore worth thinking about different kinds of accommodation. Uday has a tip: “In some universities, the student dorms give special preference to international students.” In many cases, the best option – at least at first, until you have settled into life in Germany – may be to choose a **hall of residence** (also known as a student dorm), as indeed the majority of international students do.

SHARING COSTS: A SHARED FLAT

The second-most popular type of accommodation among international students is a shared flat. The advantage is that you not only share the rent but also **quickly meet other people**: “Finding accommodation in German university cities can be a challenge,” explains Trevelyan, who is doing a doctorate in Heidelberg. His recommendation: “Cast a wide net, and be open-minded – especially to sharing an apartment with German

”
A great way to get to know people, if one doesn’t mind, is to stay in a shared apartment.
”

Uday Chopra,
PhD candidate from India at
Johannes Gutenberg University Mainz

students. This is a great way to get to know Germans while saving on rent!”

 Specialised websites are a good way to find new flatmates, or to search for a flat to share with others. For example using the Higher Education Compass: www.hochschulkompass.de/studenten-wg-gesucht (only in German)

There are also commercial websites such as: www.wg-gesucht.de

FINDING A FLAT

Almost half of international doctoral students prefer to live in their **own flat**, however – either alone or with their partner. If you are one of them, specialised online portals can help you find a flat. If possible, take a look at the classified ads on noticeboards in the cafeteria or common rooms at your

university, as these are always a good place to find good offers of accommodation from private individuals.

 The local rent index, or “Mietspiegel” in German, will give you a rough idea of what it will cost you to rent a flat. Many cities and towns collect this data and make it available online.

KEEPING AN OPEN MIND

Though your friends and families back home may still seem within easy reach these days thanks to WhatsApp and Skype, it is important to meet new people here if you want to feel properly at home in Germany. But perhaps you are a bit worried because the language is different, and the culture and local customs are different? This was also Lisbeth’s experience: “It is really easy to meet other people, but not in the same way as we do in Latin America. I guess it takes some time to figure out the German way, because here personal space and privacy are highly valued.” She has the following recommendation: “Anyone who wants to come here has to bring an open mind and get ready to embrace a different culture.”

HOW TO GET TO KNOW LOCALS

As we have already mentioned, it is helpful to be able to communicate in German – as Elizabeth points out: “Without German, you can easily find yourself isolated and disconnected from everyone.” And it will be even easier if you live in a shared flat.

But what else might help? What is the best way to meet Germans? Trevelyan has a good tip: “**Doing a sport or other extracurricular activity** is a particularly good way to meet and get to know locals.” And he believes that it is worth investing the time: “Germans themselves are kind, welcoming, and open, and making local friends is easy – provided you make an effort.”

 Find out about living and studying in Germany at:

www.study-in-germany.de

www.deutschland.de > Studying





ABOUT RESEARCH IN GERMANY

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

This and many other Research in Germany publications are available at:
www.research-in-germany.org/downloads

We hope that our brochures will offer you guidance for your career in the German research sector. For more information about Research in Germany, please visit our website:
www.research-in-germany.org and subscribe to our newsletter:
www.research-in-germany.org/newsletter.



IMPRESSUM

Publisher DAAD Deutscher Akademischer Austauschdienst
German Academic Exchange Service
Kennedyallee 50, 53175 Bonn, Germany
www.daad.de

Section International Research Marketing

Project coordination Dr Katja Lasch (responsible), Ruth André

Publishing house FAZIT Communication GmbH, Frankfurt am Main
Editorial team: Janet Schayan (project management), Dr Sabine Giehle (text, coordination), Anke Stache (art direction), Chris Cave (translation), Kerim Demir (production)

Printed by W. Kohlhammer Druckerei GmbH + Co. KG, Stuttgart
Print-run June 2019 – 30,000

© **DAAD** Any reproduction, even of extracts, is only permitted with appropriate source details and only with the publisher’s approval. This publication was funded to the DAAD by the Federal Ministry of Education and Research.



Federal Ministry
of Education
and Research



Disclaimer The information provided here makes no claim to be complete. The information is not legally binding and Research in Germany accepts no liability for the content presented in this document.

Photo credits Cover: DNY59/Getty Images; p. 2: Tomml/Getty Images; p. 4/15/18/23/32: Focke Strangmann/DAAD; p. 7: Private; p. 8: Westend61/Getty Images; p. 11: James Barber/Getty Images; p. 12: Ko Hong-Wei/EyeEm/Getty Images; p. 17: Oleg Golovnev/EyeEm/Getty Images; p. 19: Private; p. 21: Private; p. 24: FAU/Erich Malter; Atomic Imagery/Getty Images; p. 26/27: Dorling Kindersley/Getty Images; p. 28: JohnnyGreig/Getty Images; p. 30: Private; goir/iStock; p. 35: Floortje/Getty Images; p. 36: mrPliskin/iStock; p. 38: Sorapong Chaipanya/EyeEm/Getty Images



WWW.RESEARCH-IN-GERMANY.ORG

AN INITIATIVE OF THE



Federal Ministry
of Education
and Research

Research in
Germany



Land of Ideas