

# A Guide to Doing a PhD in Germany



# **Pursuing a PhD in Germany**

Germany is home to excellent research in different fields, ranging from basic research to interdisciplinary and applied science. Education, science and research have a long tradition in Germany and a high priority in the country. In this guide, we aim to provide you with information about doing a PhD in Germany.

#### You could experience:

- · An exceptional scientific environment
- · Outstanding equipment and facilities
- · A real focus on teamwork and collaboration
- · Excellent career perspectives
- · Particular advantages for international students
- · Funding provided for members of a structured PhD programme



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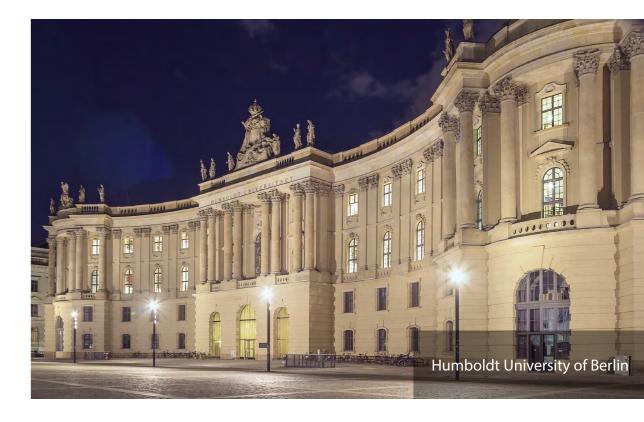
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# **Excellent Conditions for your PhD Studies in Germany**

A PhD is not only a prerequisite for a career in academia, it also provides the foundations for many different professions, for example in industry, consulting, management or the public sector. If you conduct your doctoral studies in Germany, you will benefit from an exceptional scientific environment, including outstanding equipment and facilities. This is combined with an open exchange of thoughts and experiences with other PhD students and scientists with a real focus on teamwork and collaboration.

Year by year, the number of international scientists in Germany is rising: At the moment, nearly 25,000 international PhD students are enrolled in Germany and more than 35,000 foreign researchers work in higher education institutions (**research-in-germany.org**). The career perspectives after obtaining a PhD from a German institution are outstanding: you will find alumni in top positions in both academia and industry.

In Germany, about 25,000 students graduate with a doctorate each year (academics.de). They choose to organise their doctoral studies individually or become a member of a structured PhD programme. A structured PhD programme offers particular advantages for international students and is comparable to Anglo-American doctoral programmes. For example, the application procedure is structured and transparent. Following a successful application procedure, doctoral students can expect a wide range of support over the entire duration of their PhD studies.

As a PhD student of a structured PhD programme, usually you will benefit from regular feedback and support from a Thesis Advisory Committee consisting of senior scientists from your home institute and beyond. Furthermore, the curriculum of your PhD studies is clearly defined and the duration of your studies is fixed to 3 to 4 years.

Typically, as a member of a doctoral programme, you can take part in scientific meetings, method courses and professional skills courses (e.g. on scientific writing and time management). Furthermore, PhD students often attend career events to get career advice from dedicated professionals or can get active themselves by organising events and building their own network.

25,000

PhD STUDENTS IN GERMANY GRADUATE WITH A DOCTORATE

35,000

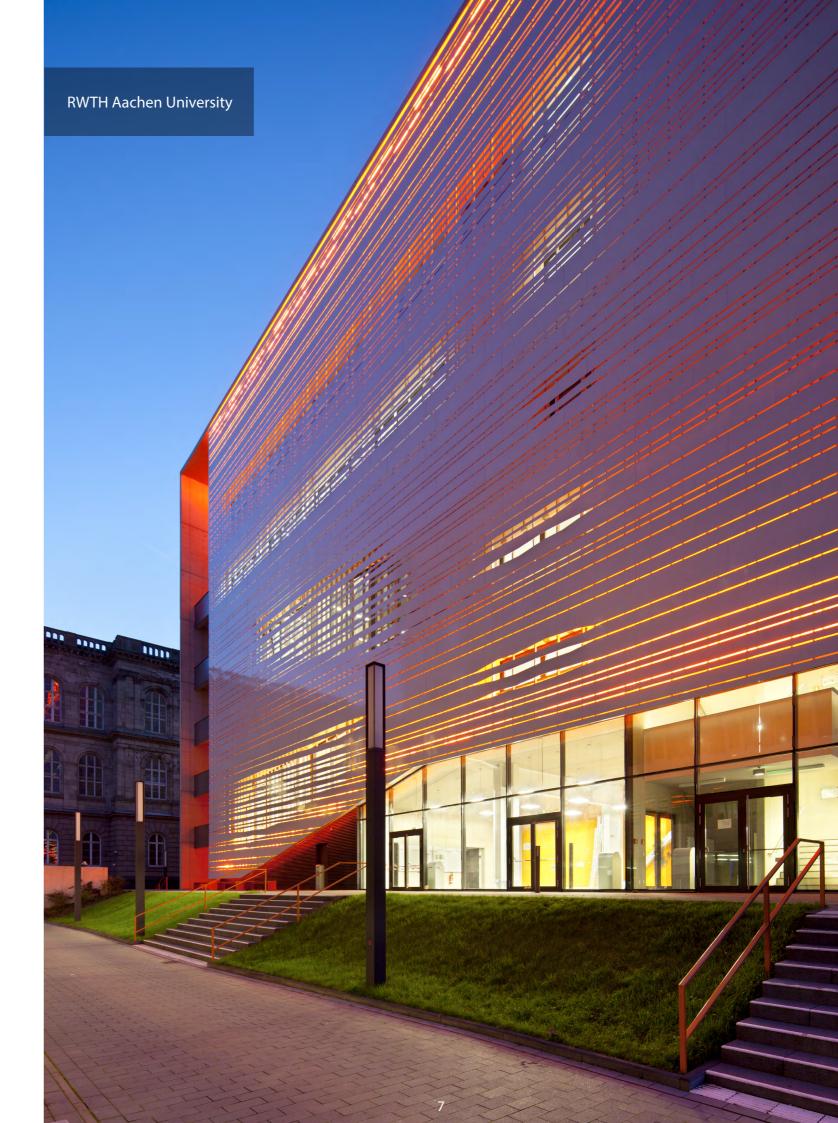
FOREIGN RESEARCHERS
WORK IN HIGHER
EDUCATION INSTITUTIONS

3-4 Years
PhD STUDIES DURATION

# Admission Requirements for a PhD in Germany

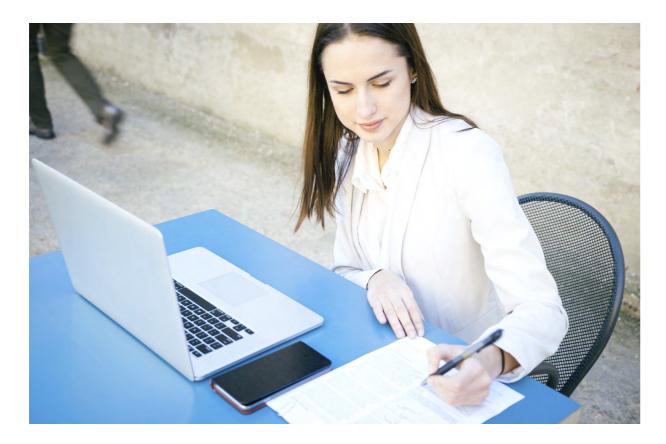
In principle, every university or research institute in Germany has its own entry requirements. As a rule of thumb, applicants are required to hold a university master's degree. In exceptional cases, international applicants with a bachelor degree are admitted, e.g. in the case of fast-track doctoral programmes.

Additionally a proof of English language proficiency is necessary (e.g. TOEFL or IELTS) or of the German language if your thesis will be conducted in German. Depending on your field of study, you will be awarded a particular doctoral title. This is for example a Dr. rer. nat. in the natural sciences, a Dr. jur. for doctors of laws or a Dr. phil. in the fields of philology, sociology, pedagogics, political sciences and history. The format of a dissertation can vary depending on the university faculty whom will provide you with specific guidelines.



### **Application Process**

Structured PhD programmes usually recruit new PhD students every year. Typically, candidates first submit an application online. Following review of their written application (which may include a short telephone interview), shortlisted candidates are invited to attend an on-site interview. This interview may last 2-3 days during which candidates have the opportunity to visit the institution and talk to potential PhD supervisors and current students and scientists. Candidates are often asked to give a short oral presentation of their own research work (typically the master project), and attend a panel interview.





# **Funding your PhD**

If you are a member of a structured PhD programme, funding is usually provided for the duration of the PhD studies. Doctoral students are usually funded by tax-free fellowships or doctoral student contracts. In some cases they can be employed as research assistants on (part-time) contracts with their institute. PhD students can be financed by the home institute, for example the university or research centre, either through institutional funding or extramural grants from funding agencies such as the **German Research Foundation (DFG)**, the main research funding organisation in Germany.

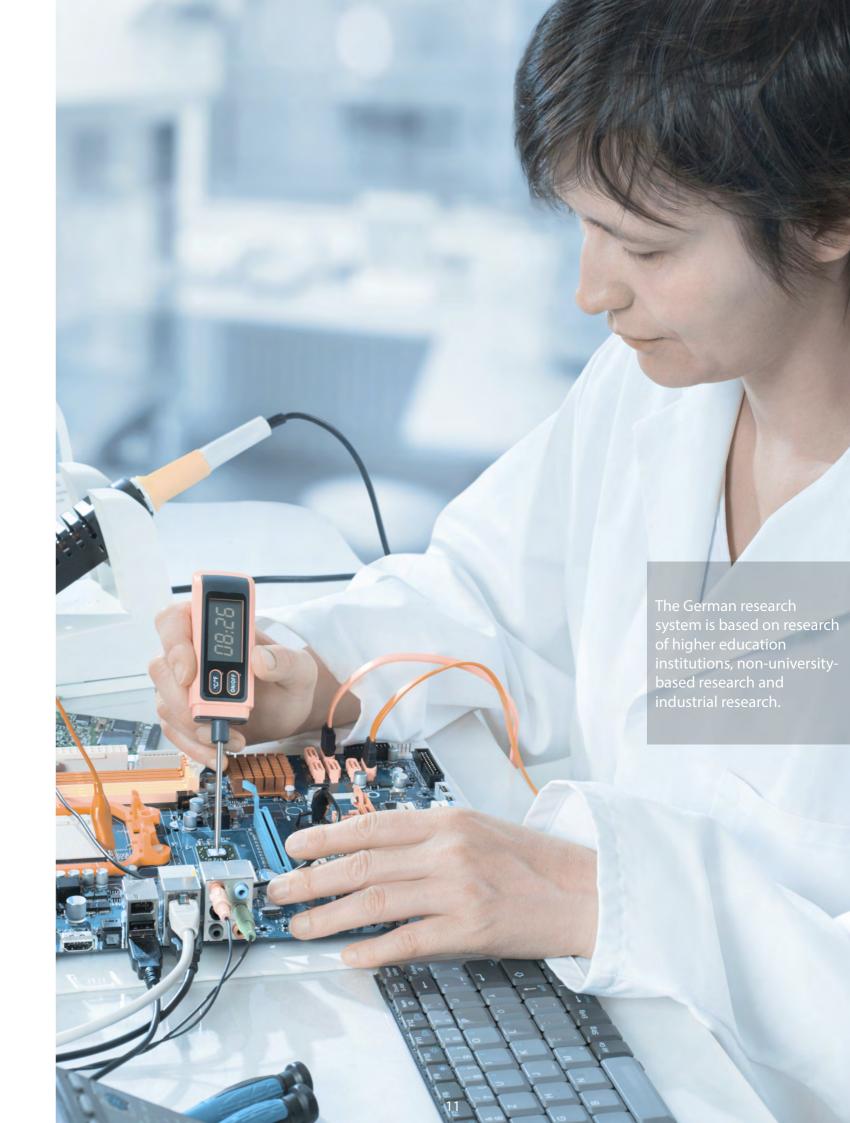
The culmination of good grades, a strong educational background and outstanding references will highly increase your chances of being awarded a fellowship. The fellowship can sometimes be awarded by the university or research institute where you would like to do your PhD or by an external funding source, like the **German Academic Exchange Service (DAAD)** which sponsors PhD students from abroad. There are also funds from industry, such as the highly competitive fellowships from the **Boehringer Ingelheim Fonds**. Fellowships usually do not include social benefits which then need to be paid separately, e.g. the health insurance. An overview about funding through fellowships can be found on the **DAAD website** and in these **funding databases**.

There are normally no tuition fees since the PhD programmes at universities and research institutions are publicly funded. At some universities, doctoral students have to pay an administrative fee per semester (Semesterbeitrag) which covers student services, public transport etc. Other than that, you will have to cover your living expenses including rent, food, clothing, telephone etc.

## **The German Research System**

The German research system is based on three main pillars: research of higher education institutions (including universities and universities of applied sciences), non-university-based research and industrial research. In Germany, you will find around 395 higher education institutions, including 110 universities and more than 220 universities of applied sciences (Fachhochschulen/Hochschulen für angewandte Wissenschaften) (**research-in-germany.org**). The latter are more practice-oriented, but also conduct research. From the total number of higher education institutions around 140 award doctoral degrees (**daad.com**, DAAD brochure "The German doctorate - A guide for doctoral candidates", 2015).

A PhD can also be conducted in the institutes of the four main non-university research organisations: **The Helmholtz Association**, the **Max Planck Society**, the **Leibniz Association** and the **Fraunhofer Society**. These independent research institutions offer excellent doctoral education and training in cooperation with universities which will award the degree. Nonetheless industrial research is also a viable route for a PhD student. At the forefront of industrial research are the automobile, chemical and engineering industries. In some cases, companies are recruiting their own PhD students for applied research. Furthermore, depending on the research topic and location, close relationships exist between industrial research organisations and universities or non-university research institutes. The aim of these joint projects is to apply research results in the "real world" and to foster synergies.



Overview of the German research system, consisting of universities and universities of applied sciences, non-university-based research (Max Planck Society, Leibniz Association, Helmholtz Association and Fraunhofer Society) and industrial research (adapted from Research in Germany)

Basic Research

**Applied Research** 

Universities

Max Planck Society

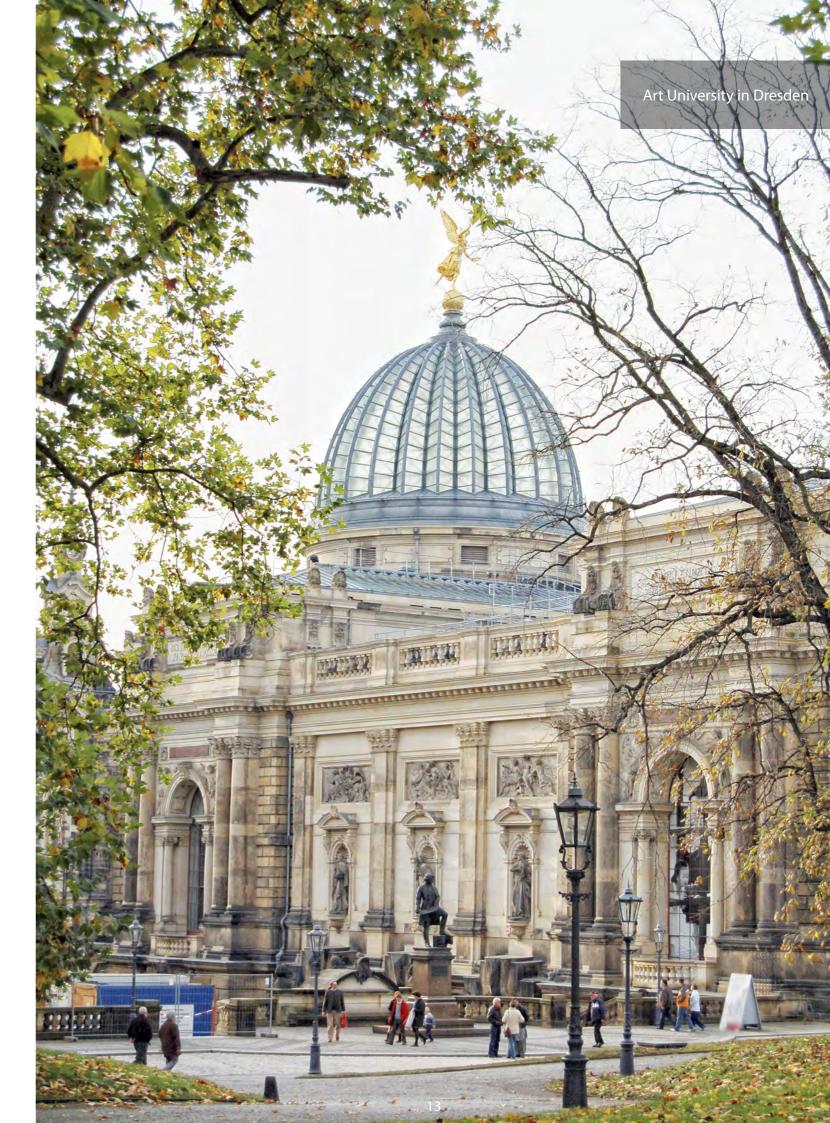
Leibniz Association

Helmholtz Association

**Universities of Applied Sciences** 

Fraunhofer Society

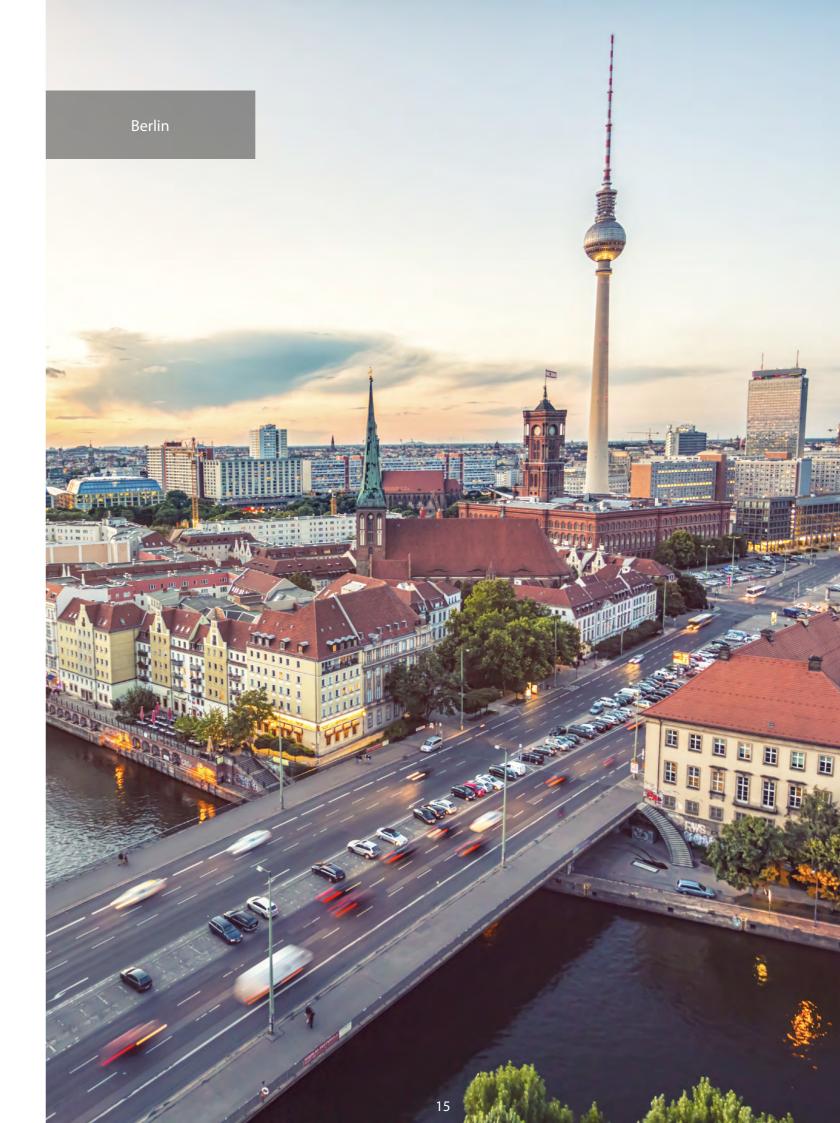
Industry



# **How to Find a Suitable Programme**

When you know your preferred topic or research institute for your PhD thesis, the next step is to find the PhD programme that aligns with your needs and interests. In Germany, there are around 700 structured PhD programmes (**research-in-germany.org**). You will find a list of around 300 doctoral programmes that are conducted entirely or mainly in English on the website of the **German Academic Exchange Service**. You can search the programmes by field of study, location or other features to provide you with detailed information about the structure, content, research focus and funding of the programme. More information about conducting a PhD thesis in Germany and a database with open positions for foreign scientists can be found on the **PhDGermany website of the DAAD**. You can also search for PhD opportunities in Germany on **jobs.ac.uk's** PhD portal.

In addition, you can research the websites of university departments and institutions independently. For instance, you can contact group leaders and professors directly in order to find a supervisor for your thesis. The individual doctorate gives you more flexibility and independence; conversely it also requires a high amount of self-responsibility as well as self-organising and timemanagement skills. Furthermore, you will likely have to procure funding yourself.



## **Living in Germany**

The quality of living in Germany is very high and there are numerous beautiful places for living and visiting. Whether you are interested in historical cities, enjoy outdoor sports, want to visit touristic hotspots or just relax in a cosy restaurant or a stylish café – Germany has a lot to offer for your free time. Even if you don't speak a word of German, you will be able to find your way around and communicate as the majority of Germans speak English. However if you are interested in expanding your language skills, universities and research centres offer German courses for free.

Coming to Germany will also mean moving to a foreign country that you might not have visited before, but don't worry – you will receive support from the International Offices of the university or research institute where you will be working and also from your colleagues and fellow PhD students. Whether it is about opening a bank account, finding accommodation or making new friends – you will always find help! More information on living and studying in Germany is available on **internationale-studierende.de.** 

Heidelberg

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When I found out about the International PhD Programme at the German Cancer Research Centre (DKFZ), I knew this was where I wanted to be: Cutting edge cancer research in one of the most renowned institutes in Germany in a beautiful and multicultural city is the perfect combination. My PhD studies at the DKFZ are a unique experience not only academically but they also enable my personal growth and cultural exchange.

Antonino from Argentina is a PhD student at the German Cancer Research Center (DKFZ)



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#### **Authors**



#### **Dr Franziska Schmidt**

Franziska Schmidt is a biochemist and did her PhD in Molecular Oncology at the University of Göttingen in Germany. After a postdoc, she joined the German Cancer Research Centre (DKFZ) in Heidelberg where she is working as Project Manager for the International PhD Programme.

#### **Dr Barbara Janssens**



Barbara Janssens is a Belgian biologist. She studied biotechnology and obtained a PhD in Molecular Biology (Ghent, Belgium, 2002), did a postdoc at the Institut Curie in Paris (France) and then became Managing Editor of Biotechnology Journal at Wiley-VCH in Weinheim (Germany) in 2006, where she was promoted co-Editor-in-Chief and started teaching workshops on Scientific Writing in 2008. She joined the German Cancer Research Centre (DKFZ) in Heidelberg in 2011 to set up a **Career Service** for graduate students and postdocs.

# GERMAN CANCER RESEARCH CENTER

The German Cancer Research Centre (DKFZ) in Heidelberg is Germany's largest biomedical research institute and offers a structured graduate training since 2003. Within the International PhD Programme, students conduct research at the forefront of basic, epidemiological and translational cancer research. The language of the PhD programme is English. PhD students are supported by a Thesis Advisory Committee and offered lecture series on the current state of cancer research, professional skills courses and career events. Furthermore, the 550 PhD students broaden their horizons at PhD retreats, poster presentations and international conferences.

As part of the Helmholtz Association, the largest research organisation in Germany, the German Cancer Research Centre has an international and dynamic work environment, providing PhD students with access to state-of-the-art research facilities and exceptional resources. The long-term goal of the DKFZ is to unravel the causes and mechanisms of cancer development and to identify novel tools for diagnosis, treatment and prevention. Two researchers of the DKFZ, Harald zur Hausen (2008) and Stefan Hell (2014), received the Nobel Prize.

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### **Additional Reading**



#### Should I do a PhD?

This e-book has been developed to help all those who are considering undertaking a PhD but its focus is on using career decision making approaches to assess and prepare for this rather than on the choice of research topic.



#### **Career Planning for PhDs ebook**

The market for jobs in both academia and other sectors is competitive, and you therefore need to plan ahead, be strategic in your job search and look at ways to stand out from the crowd. This ebook can help you.



#### A Pratical Guide to Planning an Academic or Research Career

This ebook will help you to decide whether doing a Masters and then a PhD followed by an academic career is for you. Also included are a couple of simple 5-minute activities to help you consider your options and an action plan template to help you plan your academic career.

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#### Great jobs for bright people

From PhD programmes to research projects and studentships, jobs.ac.uk has a dedicated new PhD portal for postgraduates where you can search 1000s of PhDs.

You can filter your search by:

- → Qualification type
- → Discipline and sub-category
- → Funding amount and eligibility
- → Provider
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