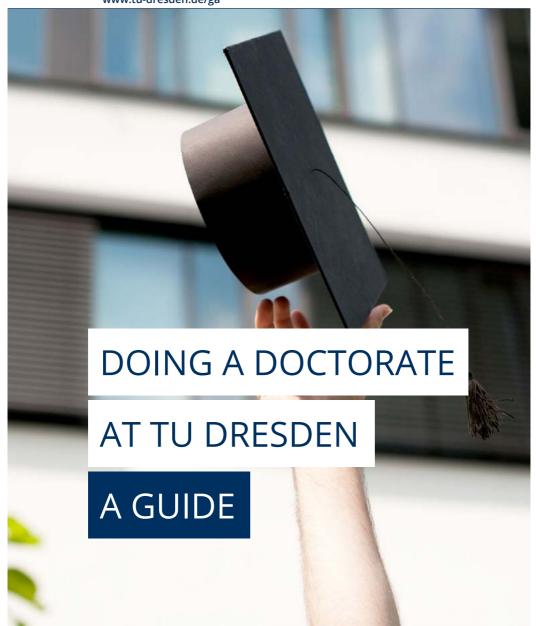


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#### Editor:

TU Dresden | Graduate Academy Mommsenstraße 7 01069 Dresden phone: +49 351 463 42241 | 42242 fax: +49 351 463 37001

e-mail: graduiertenakademie@tu-dresden.de

### WWW.TU-DRESDEN.DE/GA



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Guide for doctoral candidates at TU Dresden Preface

## Dear (prospective) doctoral candidates...

I am delighted, that you are interested in starting a doctorate at TU Dresden or that you have already started one! Our university attaches great importance to promoting and supporting young researchers and at TU Dresden you will find optimal framework conditions for your doctoral project.

On the one hand, TU Dresden provides excellent research opportunities within a wide range of disciplines: as comprehensive university of technology with 18 Faculties as well as the "Synergetic University" in cooperation with numerous non-university research institutions in the Dresden area. On the other hand, in addition to research competence and expertise, as a (prospective) doctoral candidate you will also benefit from a wide range of offers of trans-disciplinary qualification and training, individual advice and funding opportunities. This variety of services for junior researchers is centralized under the roof of the Graduate Academy – an important place to go for you with all your questions related to your doctorate.

Nearly 800 doctoral degrees are awarded every year at TU Dresden, and this number is increasing. However, the framework conditions under which you will start and conclude a doctorate at TU Dresden can vary significantly according to the culture of the respective academic dicipline, the funding model, the type of doctorate and the supervision style.

This booklet is supposed to give you a first overview over the variety of doctoral opportunities at TU Dresden and to serve as an orientation within your every-day-life as a doctoral candidate.

I hope you enjoy reading it!

Sincerely yours

Prof. Dr. Gerhard Rödel
Vice-Rector for Research

## ...it is so nice to have you here!

You have your Master's, your diploma or your state exam safely under your belt, your grades are excellent and you enjoy scientific work? But still, somehow you are not quite sure if doing a doctoral degree is the right choice for you? Or perhaps you have already started on your doctorate and still have a lot of questions to ask?

At TU Dresden, you can contact the Graduate Academy, a facility that operates university-wide and will be happy to support and advise you in any way possible, be it on how to finance and organize your doctorate or on qualification programs.

In the shape of this little guide to acquiring your mortarboard, we – the team at the Graduate Academy – would like to provide you with helpful hints and information in order for you to successfully master your doctorate. We are, of course, also available to answer your individual questions. Come to the Graduate Academy, call us or send us an e-mail. We look forward to assisting you on the path to earning your doctorate, and wish you every success with this venture.

The Graduate Academy Team

Wherever you see this symbol  $\Im$ , you will find a more detailed explanation within the glossary at the end of this booklet. A direct link to the relevant pages on the Internet is indicated by this symbol ».

The detailed contact information of the different support services can also be found at the end of this brochure.

TIP

# DOING A DOCTORATE

# AT TU DRESDEN



» Project: Doctorate

» TU Dresden and DRESDEN-concept

» Admission requirements

» Being accepted as a doctoral candidate and enrollment

» Types of doctorate

» Supervisor and topic for the doctoral thesis

» Graduate Academy

## 1.1 Project: Doctorate

Doing a doctorate is an exciting challenge that will make great demands on your time and your motivation, and will sometimes leave your nerves in tatters. Will it still be worth it to bravely forge ahead on the path to acquiring your motarboard?

With a doctorate, you demonstrate your ability to provide an independent, original, in-depth contribution to scientific research, which adds to the knowledge in the respective discipline. This is usually documented in the form of a monographic dissertation, but can also be effected in the form of a cumulative dissertation (thesis by publication). This will depend on the doctoral degree regulations of your Faculty.

After you have mastered all the necessary tasks and challenges and have successfully got through and passed your **tinal examination/defense**, you will be awarded an overall grade. The grading scale has five different valuation levels: summa cum laude ("excellent"), magna cum laude ("very good"), cum laude ("good"), rite ("sufficient"), non sufficit ("insufficient").

Since there is an obligation to publish your scientific work, the "only thing" that now remains for you to do is to publish your dissertation. This is necessary in order to receive your doctorate – the highest academic degree in Germany. You can find more information on this subject in chapter 4.

The duration of a doctoral degree process is most often estimated to be at least three years, which is, by the way, the usual approval period for doctoral scholarships. But depending on the individual research and working environment as well as the level of personal motivation and self-organization, a doctorate may also extend over a considerably longer period of time. That is why it is advisable to consider your own motives for deciding in favor of doing a doctorate carefully.

How would you answer the following questions?

- Is a doctorate useful or even necessary for my career goals?
- How will I fund my doctorate?
- How much time am I prepared and able to invest in the work?
- Does the doctorate also fit into my personal life plan?

Talking to family and friends about the pros and cons of a doctorate can be helpful. But you will also be able to get valuable insights into everyday scientific life, with all its ups and downs, and useful tips and hints from professors or from junior researchers who are doing or have done a doctorate.

TIP

In addition to the information provided by the » **Doctoral Offices of the Faculties**, the staff of the » **Graduate Academy** at TU Dresden will be happy to offer you a personal consultation during which all your individual questions regarding the opportunities, progress and funding of your doctorate can be discussed in confidence.



Guide for doctoral candidates at TU Dresden Doing a doctorate at TU Dresden

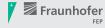


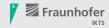


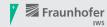






































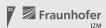


















## 1.2 TU Dresden and its DRESDEN-concept partner institutions

As a University of Excellence, TU Dresden is one of Germany's most research-intensive universities. You can do a doctorate at all of the 18 Faculties of TU Dresden:

#### School of Science

- Faculty of Biology
- Faculty of Chemistry and Food Chemistry
- Faculty of Mathematics
- · Faculty of Physics
- Faculty of Psychology

#### **School of Humanities and Social Sciences**

- Faculty of Education
- Faculty of Law
- Faculty of Arts, Humanities and Social Science
- Faculty of Linguistics, Literature and Cultural Studies

#### **School of Engingeering Sciences**

- Faculty of Electrical and Computer Engineering
- Faculty of Computer Science
- Faculty of Mechanical Science and Engineering

## School of Civil and Environmental Engineering

- · Faculty of Architecture
- Faculty of Civil Engineering

- Faculty of Environmental Sciences
- Faculty of Transportation and Traffic Science
- Faculty of Business and Economics

#### **School of Medicine**

Faculty of Medicine Carl Gustav Carus

In addition to the university, numerous non-university research facilities are located in Dresden, collaborating with TU Dresden as part of DRESDEN-concept. The majority of these research institutes belong to the four major research organizations – the Fraunhofer Society, the Helmholtz Association, the Leibniz Association, the Max Planck Society. Additional partners are the three major museums of Dresden, the University Hospital and the Saxon State and University Library (SLUB). Many of these institutes offer interesting opportunities for work and research to junior researchers who are seeking to do a doctorate.

However, these research institutes themselves do not have the right to award doctoral degrees. So if you are working and researching at such a facility, you will still need a doctoral supervisor at the university and will have to be accepted as a doctoral candidate at a Faculty.



## 1.3 Admission requirements for doctoral candidates

In addition to motivation, an interest in research and the academic support from a doctoral supervisor, there are, of course, also some formal requirements that need to be met before you can begin your doctorate.

TU Dresden usually requires you to have done a course of study at a university, an equivalent institution or a university of applied sciences, successfully completed with a M.A., a diploma, a first state exam or a Master's examination with a grade no lower than "good".

In exceptional cases, Bachelor graduates with above-average grades may also be admitted to the doctoral degree. Doing a doctorate in another discipline is also possible. In either case, you will usually need to attend additional courses in the subject of the doctorate.

The admission requirements are set out in detail in the Doctoral Degree Regulations of the indivi-

dual Faculties. At TU Dresden, each Faculty has its own Doctoral Degree Regulations, specifying which admission requirements you must meet, explaining the doctoral degree process and which doctoral degrees are awarded. An Overview of the Doctoral Offices and Degree Regulations of the different Faculties can be found on the homepage of TU Dresden. The staff in the relevant Dean's Offices or Doctoral Offices will be happy to give you additional assistance.

Familiarize yourself early on with the Doctoral
Degree Regulations of your Faculty. This will help
you plan the formal steps involved in doing your
doctorate so that you can focus on your academic
work, especially in the labor-intensive final
stage.

TIP

## 1.4 Being accepted as a doctoral candidate and enrollment

Do you fulfill the formal requirements for admission to the doctoral degree process? If so, you will need a confirmation of a professor of TU Dresden or a TUD Young Investigator to act as your academic supervisor in order to be accepted as a doctoral candidate at a Faculty of TU Dresden, and to be able to start your doctorate officially.

As soon as you have confirmation from your supervisor, you can submit an application to be accepted as a doctoral candidate to the Doctoral Office or the Dean's Office of the relevant Faculty. This will be examined by the Doctoral Committee and, once it is approved, you will be included in the register of doctoral candidates of the Faculty concerned.



Your university degree was obtained abroad and you are interested in doing a doctorate at TU Dresden? In this case, it is important to check in advance whether your degree meets the formal requirements for admission as a doctoral candidate at the respective Faculty. Initial information regarding the recognition of foreign educational qualifications can be found on the Internet portal of the Standing Conference of the Ministers of Education and Cultural Affairs: » www.anabin.kmk.org

The » <u>International Office at TU Dresden</u> is responsible for examining your university degree if it was obtained abroad. Please submit the following documents:

- résumé/c. v.
- copy of the original certificate of your university entrance qualification
- officially certified copies and translations in German or English of all university degree certificates
- copy and translation of overview of subjects with grades (transcript) from the highest university degree

#### Contact:

International Office at TU Dresden Admissions and Support for International Doctoral Students e-mail: <u>international.phd.applicants@tu-dresden.de</u>

Guide for doctoral candidates at TU Dresden

Doing a doctorate at TU Dresden

While acceptance as a doctoral candidate by the Faculty is a compulsory prerequisite for your doctoral degree procedure, enrollment as a doctoral student is voluntary. To enroll, go to the » Online Application Portal of the Admissions Office. Only enrollment entitles you to take advantage of the numerous student privileges, such as the low-cost semester ticket. Please observe the customary enrollment and re-registration deadlines. Enrollment as a doctoral student is valid for an initial period of

three years. This period can be extended with the consent of the Faculty.

We recommend that you register as a doctoral candidate at your Faculty right at the beginning of your doctorate. Thereby you are following the

» Guidelines for Safeguarding Good Scientific Practice, Avoiding Scientific Misconduct and Dealing with Violations at TU Dresden.

TIP



## 1.5 Types of doctorate

While the formal requirements and admission procedures apply equally to all doctoral candidates, the ways in which the doctoral process is carried out and the conditions that apply differ considerably.

You can do your doctorate as an individual doctoral candidate employed at a professorship or institute, or as part of a structured doctoral degree program.

Of course, external factors often play an important role in making this decision, particularly the availability of a scholarship or a specific position (see chapter 2 for more information on this).

Below, we would like to introduce the different types of doctorate and their potential advantages and disadvantages in some more detail.

### The individual doctorate

In the German academic system, the individual doctorate is the most frequently chosen, rather 'traditional' path to the title of 'Doctor'. As the name already suggests, this form of doctorate allows you a high degree of individuality, freedom and organizational leeway.

If you would like to do your doctorate in this way, then you need to find your own supervisor and, together with him or her, determine your research topic. You can find more about this in section 3.2.

You will also be largely free in terms of how you allocate your time, and sometimes even in the choice of place of work.

Individual doctorates come in a variety of forms:

- For example, you can do your doctorate as a research associate in what is known as a qualification position at the university or at a non-university research institution. Here we need to distinguish between doing a doctorate in a position covered by the university budget or in a third-party financed research project. This distinction may be significant when it comes to the extent of your integration into teaching.
- Alternatively, you can opt for an **a exter- nal doctorate**, in which you work for an employer outside of the university.
- Another option is to fund your doctorate with a scholarship (for instance, via a so-called organization for the promotion of young talent), or completely independently.

#### **Structured doctorate**

You would prefer to work in close collaboration with a team of doctoral candidates and within the framework of a doctoral degree program? In that case, a structured doctorate may be the right choice for you. Unlike an individual doctorate, being integrated into a structured doctoral degree program provides you with

- a more rigorously structured framework and
- a mostly interdisciplinary research focus,
- financial security in the form of scholarships or staff contracts,
- a network of other doctoral candidates and more intensive supervision, often even by a whole team of supervisors, and
- in many cases, also with a wide-ranging cross-disciplinary qualification program.

This comprehensive package comes at a "price": The number of places in structured doctoral degree programs at German universities is still very limited. Structured doctoral degree programs usually have fixed application deadlines and competitive selection procedures. Also, the thematic framework is often already circumscribed to such an extent that it does not necessarily fit with your own research interest in terms of discipline and subject.

Among the most important versions of structured doctoral degree programs are the Research Training Groups established by the DFG and the Graduate Schools, established as part of the Excellence Initiative (2005-2017). Other structured doctoral degree

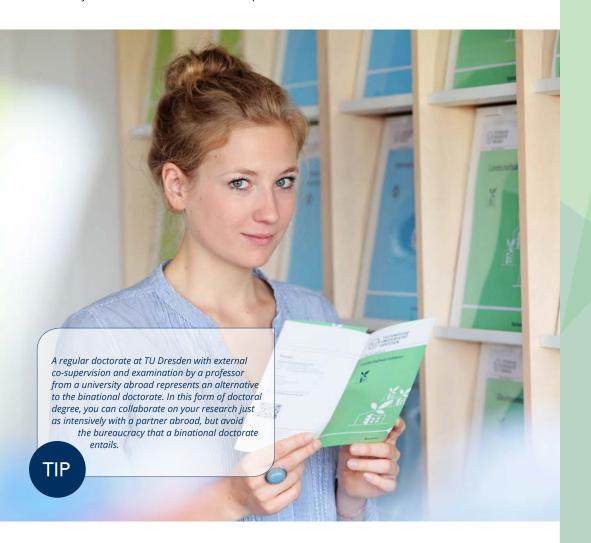


Guide for doctoral candidates at TU Dresden

Doing a doctorate at TU Dresden

programs include the International Max Planck Research Schools or the Helmholtz International Research Schools, which, in close cooperation with universities, train doctoral candidates. There are also smaller structured doctoral degree programs, which are sometimes funded by individual foundations or other sponsors, and usually have a clear thematic focus.

An overview of the structured doctoral degree programs offered by TU Dresden can be found on the » TU webpages in the area of Research Llunior Researchers.



### Special form: binational doctorate or cotutelle de thèse

At TU Dresden, you also have the opportunity to do a binational doctorate. In this version, doctoral candidates research under the joint supervision of a professor at TU Dresden and a professor from a university abroad. You write *one* dissertation, but your doctoral degree is awarded to you by *two* universities from different countries.

In principle, a binational doctorate is possible at all Faculties of TU Dresden, and there are also no restrictions in terms of the cooperating countries. In most cases, this doctoral degree procedure in two countries is done as an individual doctoral degree.

There are, however, also structured doctoral degree programs which allow a binational doctorate. An overview of dual or joint doctoral degree programs can be found at the

#### » TU webpages in the area of Research I Junior Researchers.

Are you interested in a binational doctorate? If so, then you need to take note of the following points:

- You need to find a supervisor at TU Dresden and one at a university abroad. They
  will both have to agree to supervise your binational doctorate.
- You need to register as a doctoral candidate at both universities.
- The two universities sign a cooperation agreement which, of course, does not affect the validity of the doctoral degree regulations that apply in each case.
- You will complete research stays at both universities.

That way, more or less "in passing", you will get to know two different academic systems, improve your language skills and, of course, expand your intercultural horizons – a big plus on the employment market.

Have you already decided on a topic, the second university and your supervisors? The Graduate Academy will be happy to advise and assist you with any further questions concerning the binational doctorate.

#### » Graduate Academy | Advice.

Guide for doctoral candidates at TU Dresden Doing a doctorate at TU Dresden

## 1.6 Finding a doctoral supervisor and a topic for your dissertation

Choosing a supervisor and the topic for your dissertation can take various forms, depending on the culture of the discipline and the context of the doctorate. When doing an individual doctorate in the humanities and social sciences, it is common practice to try and find your supervisor after you have come up with a suggestion for the topic of your doctoral thesis. In the natural sciences and engineering, the path to the dissertation topic often runs a different course. Frequently, doctorates are done as part of third-party funded projects. The subject of the doctoral thesis is therefore more often prescribed by the supervisor, who in many cases is also the project leader.

When applying for a place in a structured doctoral degree program, your own idea for a project – dovetailing into the respective

over-arching subject – is often called for. In such a case, supervision is undertaken by one of the professors participating in the program.

However, it is always advisable to agree on the subject of your doctoral thesis in close cooperation with your supervisor. Although there is no "right" or "wrong" doctoral topic, it is important to check whether your planned doctoral project can be processed and implemented within a reasonable time by a single person (i.e. feasibility) and whether it contributes to the body of knowledge in the relevant scientific field (i.e. relevance).

With a view to your long-term career plans, you can ask yourself the following questions:

 Would I prefer to do research on an application-related topic and in this way facilitate a start of my future career outside academia?

 Or am I aiming for an academic career and would I therefore like to focus more on basic research?

When looking for a professor or TUD Young Investigator to supervise your dissertation, their professional expertise in the relevant discipline is, of course, of crucial importance. For an initial assessment, their list of publications and their research projects provide good pointers.

In addition to professional expertise, "softer" factors also play an important role: Does the style of supervising fit your expectations and needs? But how can you assess these aspects in advance? The following may provide clues:

If research colloquia and seminars for doctoral candidates are offered at the professorship, this indicates systematic and regular supervision.

- It is also worth taking a look at (successfully) completed doctorates.
- Talking to former or current doctoral candidates of the professor in question can also be helpful.

If you are not applying directly for an advertised doctoral position or for a structured program, then simply write an e-mail to the professor or TUD Young Investigator. The following information will be of interest to your prospective "supervisor of choice":

- Formulate a brief description of your research interest and / or the doctoral thesis you are aiming for.
- Make clear what thematic relevance is shared between the research areas of the professorship and your own research interest.
- List your experiences in studying and / or researching the relevant subject area.
- Attach a brief résumé/c.v. (if applicable, with references) to your e-mail.





Guide for doctoral candidates at TU Dresden

Doing a doctorate at TU Dresden













## 1.7 The Graduate Academy at TU Dresden

You have fulfilled all the requirements and have successfully taken the first administrative steps on the way to starting your doctorate; you have been given an assurance of supervision by a university professor and have been accepted as a doctoral candidate by the relevant Faculty?

A further important step on your way to earning a doctorate: Become a member of the Graduate Academy (GA) at TU Dresden! If you are wondering why you should do so, it is because the GA offers you:

- a » <u>qualification program</u>, specifically designed for young researchers with numerous workshops and seminars,
- an individually tailored » <u>advisory service</u> <u>and coaching</u> before, during and after the doctorate,
- » <u>funding programs</u> for doctoral candidates and postdocs, such as short-term scholarships or travel allowances for conferences or stays abroad,
- the » **GA Writing Lab** with numerous activities related to academic writing
- and » events where you can network and exchange ideas and experiences with other doctoral candidates.

Registering with the Graduate Academy is easy:

- Fill out the » online application form and send it to us.
- Submit your completed documents by post or e-mail. These should consist of the supervision agreement you have concluded with your supervisor, including a timetable and work plan, proof of admission to the doctoral candidates' register of your Faculty and your declaration of consent regarding data protection.

- Your application documents will be checked and processed as quickly as possible by the Graduate Academy team.
- Have you fulfilled all the requirements and are your documents complete?
- Then you will receive your confirmation of acceptance by e-mail and a welcome letter with lots of helpful information by post, so that you can now benefit from all the advantages of a GA membership.

And another piece of good news: Even after you have successfully completed your doctorate, you can still remain a member as a post-doc and supervisor at TU Dresden!

As you can see, becoming a GA member is definitely worth it. Do you have any questions regarding membership? We have the answers – in person and on our website

» Graduate Academy | Advice.

Graduate Academy membership is open to all doctoral candidates of TU Dresden and offers you many benefits. It is voluntary and free of charge. This, of course, also applies to doctoral candidates at non-university partner institutions and to external doctoral candidates.





Guide for doctoral candidates at TU Dresden Financing and funding

## 2.1 Money matters

Time, motivation and brilliant ideas alone will unfortunately not be enough to bring your doctorate to a successful conclusion. As is often the case, the central question here, too, is how to finance your cost of living. There are a variety of possible answers here.

The most common models for financing a doctorate are:

- a position financed through the university budget or third-party funding as a research assistant (WHK) or research associate at a professorship or a non-university research institution,
- doctoral scholarship,
- external employment, e.g. in industry,
- financing yourself with, for example, savings, family support or non-university jobs

Whatever you choose, the following questions are important:

- Is the funding secure for the entire duration of the doctorate (at least three vears)?
- Would you be able to bridge periods without funding and still work on your doctorate?
- Is follow-up or completion funding available?
- What impact will the type of funding have on your doctoral time and work plan?
- Given your preferred type of funding, what is the situation like with regard to the compatibility of a doctorate with family life? What impact would the type of funding have on parental allowance?
- Will you need additional funds for attending conferences and / or for research stays abroad?

#### Information for international doctoral candidates

If you need a visa for the duration of your doctoral degree, please note that you will have to provide evidence of an appropriate level of income or savings.

You can get further information and support from TU Dresden's » Welcome Center.



Guide for doctoral candidates at TU Dresden Financing and funding

## 2.2 **Doctoral positions**

Doctoral candidates can work as research assistants or research associates at universities or non-university research institutions. If you have such a position, you will often be involved in teaching (usually for two to four hours per week per semester), supervising students and carrying out administrative tasks and academic activities that are not directly related to your doctorate. Payment is made in accordance with the respective university's remuneration guidelines for research assistants (WHKs) or for research associates with the » Tarifvertrag des öffentlichen Dienstes (collective public service tariff agreement of each federal state). As a rule, this corresponds to the E13 pay grade for academic staff. These doctoral positions have fixed-term contracts and are often part-time. However, as a **presearch assistant** you can only be employed part-time and for a maximum of 19 hours per week.

Positions funded through the university budget are as a rule filled for a period of three years. The duration of positions financed through third-party funding, on the other hand, depends on the length of time the approved project will run for. The maximum duration of an employment contract aimed at achieving a qualification, e.g. a doctorate, is six years, pursuant to the » Wissenschaftszeitvertragsgesetz (WissZeitVG) (law on fixed-term contracts in higher education and research). All types of contracts, whether financed through the university budget or through third-party funding, count towards this six-year period no matter if this is a position as a research assistant or as a research associate. Only when you have reached your qualification goal, the doctorate, is it possible to continue working at the university for another six years. Your contract can be extended by the time you spend on parental leave (two years max. per child). Read more about this in section 3.4. As a result of being employed in the public sector, you will receive health insurance through your employer and acquire rights to parental allowance, pension and unemployment benefits - a big advantage. Please refer to section 2.5 for more on this subject. With a view to your long-term career plans, a position as a research associate can provide even more benefits. Being closely involved in the research and teaching of your department will enable you to acquire valuable academic skills in teaching, science and project management in addition to your doctorate. Working at a professorship at the same time as doing your doctorate is a challenge that you can, however, master by employing good time management. You can find tips on this in section 3.1.

## 2.3 **Doctoral scholarships**

Perhaps you would rather concentrate on your own research and be flexible in terms of time and place. In this case, a doctoral scholarship is potentially the right thing for you. Scholarships are, among others, awarded regionally by individual universities and/or federal states. There are also occasional calls for scholarships as part of third-party-funded research projects at universities or non-university research institutions.

**TU Dresden** currently offers three scholarship programs, each for up to three years of doctoral funding. You can find information on these and application deadlines at **Graduate Academy | Funding.** 

The 13 national **Begabtenförderungswerke** (organizations for the promotion of young talent) are the most important awarders of PhD

scholarships. You can apply to them directly for a scholarship for your doctoral project. The German Research Foundation (Deutsche Forschungsgemeinschaft DFG) also grants numerous doctoral scholarships, but only in the context of DFG-funded research training groups. Doctoral candidates cannot, unfortunately, apply directly to the DFG for an individual grant.

An overview of doctoral scholarships is available on the website of the Federal Ministry of Education and Research at » <a href="https://www.stipendiumplus.de">www.stipendiumplus.de</a> and on the pages of the » <a href="mailto:Graduate Academy">Graduate Academy</a> <a href="mailto:Funding">Funding</a>.

TIP

You should obtain an overview of the individual sponsors and check which foundation best suits you and your doctoral project. You should also bear in mind the application deadlines. Some organizations for the promotion of young talent announce scholarships only once or twice a year, while others allow you to submit your application at any time.

Generally, the application documents include:

- an outline of your doctoral project,
- two expert letters of recommendation, one of them from your doctoral supervisor,
- a résumé/c.v.,
- your final university certificate and other relevant documents.



The following criteria are decisive when applying for a scholarship:

- an outstanding university degree,
- a convincing doctoral project (presented in the outline and supported by the expert letters of recommendation),
- where applicable, proven commitment in line with the objectives of the foundation.
- your religion, if applying to denomination-based foundations, and last but not least.
- ensuring your submitted documents are complete.

Advantage: In addition to providing financial support, most organizations for the promotion of young talent offer qualification programs for professional training and personal development, as well as specialist, political and cultural events and networking opportunities.

The usual funding period for doctoral scholarships is two years, with the option of extension for a further year. The monthly scholars-

Preparation is key: Due to the variety of funding programs and the great demands placed on applicants, you should plan enough time for your scholarship application and be prepared for a competitive selection process. It is recommended that you start preparing one year before you plan to begin your doctorate.

TIP

hip amount varies, depending on the funding body. Currently, the DFG recommends a monthly scholarship rate for doctoral candidates of 1,365 EUR (plus 103 EUR for non-personnel costs). Frequently, doctoral scholarships are supplemented with, for example, family and child allowances, as well as with lump sums for materials and research trips and/or with health insurance subsidies.

Please note that a scholarship is not an employment contract that is subject to statutory social security contributions. This means, you will not acquire any entitlement to parental allowance, pension or unemployment benefits. Please do not forget that you are, as a matter of principle, obliged to take voluntary private or statutory health insurance.

If you are in additional minor employment (with maximum monthly earnings of 400 EUR) or are self-employed during the period in which you receive funding, you can acquire entitlement to social security benefits in this way and enjoy safeguards through your employer. However, many funding authorities will offset this income against your scholarship and deduct the sum from the amount you receive each month. Often, the part-time work must not be related to your doctoral project. So, make sure you ask your scholarship provider – before you accept a part-time job.

#### Information for international doctoral candidates

You are from another country and want to begin your doctorate in Germany? If so, then the German Academic Exchange Service (DAAD) is the most important funding body for you. You can already apply for funding for your project before you arrive in Germany and up to 15 months after your arrival. An application requirement, among others, is that you have confirmation of supervision from a professor at a German university.

You can find out about the various funding programs of the DAAD and of other scholarship providers at the » **Scholarship database on the DAAD website**.

## 2.4 Industry-sponsored doctorates

Research-based companies attempt very early on to find – and keep – promising talents. They fund research projects that are of scientific and / or economic interest to the company. The subject of your doctoral thesis will, for the most part, be prescribed in advance and you will be employed in the company while you are working on your doctorate. This can involve a dual workload that you should not underestimate.

Anindustry-sponsored doctoral degree allows you to gain practical experience beyond research and teaching, in addition to your research activities; it is not uncommon for such a doctoral degree to lead subsequently to direct entry into or continued employment at the company. In an ideal scenario, then, both sides benefit from this arrangement. If you are aiming for a career in academia, however, the lack of integration into academic life could work to your disadvantage.

For an industry-sponsored doctoral degree, you will, of course, also need a university professor to provide scientific supervision for your doctoral thesis. The contact to potential supervisors will either arise from existing collaborations between the university and company or you will have to look for a suitable supervisor on your own. You can find out more about this in section 1.6.

Industry-sponsoreddoctoraldegreesaremostfrequentlyfoundintheautomotive, electricalengineeringortelecommunicationsectors. For example, there is a close cooperation between TU Dresden and Audi AG in the form of the strategic alliance INI. TUD, which promotes young researchers. However, you can also find doctoral positions via a targeted search on company websites, or via relevant job portals. If you have already found your employer of choice, then take the initiative and send an application. A further possibility is to establish contact with companies through the network of your future doctoral supervisor.

Have you found a suitable position and a supervisor for your industry-sponsored doctoral degree? Now, a contract has to be drawn up between TU Dresden and the company concerned. You can seek help and advice with contract design from the staff at the » <u>Directorate Budget and Purchases | Unit 1.3 | Administration of External Funding</u>.



Guide for Doctoral Candidates at TU Dresden Financing and Funding

## 2.5 Questions and answers regarding insurance issues

There are no uniform regulations – unlike for students – regarding the issue of social security cover of doctoral candidates. If and to what extent you do have social security cover during the doctoral phase depends on whether you are doing your doctorate as an employee at a university, a research institution or a company, or whether you receive a scholarship.

To make sure you are ,on the safe side', we have compiled an overview for you of the individual types of funding and the most important social security factors related to them:

# Doctoral candidates in non-tenured employment (e.g. at TU Dresden or non-university research institutions)

As part of your non-tenured employment, both for positions financed by the university budget, or by third-party funding or in a position as research assistant, and in the context of non-university employment, you enjoy full insurance cover through your employer. With regard to health insurance, you need only take action when it comes to selecting a health insurance provider. It is worth knowing that the monthly contributions to statutory health insurance providers are standardized (15.5% of the income that is liable to contributions).

**Private health insurance providers**, on the other hand, try to attract new customers by offering low contributions and reimbursements. However, the premiums of private health insurers can rise significantly with age. As a return to statutory health insurance is not necessarily possible, you need to consider carefully before taking out private health insurance.

**Unemployment insurance** is also mandatory for anyone in non-tenured employment. The employer and the employee pay equal parts of the contribution, and after termination of the period of employment, the employee is entitled to wage replacement benefits. However, in order to be able to claim unemployment benefit (Arbeitslosengeld I) after your employment contract expires, you must also have completed the ,qualifying periods', that is, you must have been employed for at least 12 months within the previous two years in a job with mandatory social security contributions. You can find more information about this on the website of the » Bundesagentur für Arbeit (Federal Employment Agency).

## Doctoral candidates not in employment (e.g. scholarship holders)

Since this group of doctoral candidates are not in employment, they are, on the one hand, exempt from statutory insurance. On the other hand, they are nevertheless obliged to take out voluntary insurance, either with a statutory or with a private health insurance provider. Even as an enrolled doctoral student, you are unfortunately not legally entitled to be insured at the favorable student rates offered by the health insurance providers. In individual cases and under certain circumstances, your health insurance provider might still offer you such a rate during your doctoral studies. Please discuss this matter directly with your insurance provider.

If you take out insurance as a doctoral candidate who is not in employment, this means that you must pay the entire monthly contribution yourself. How this is calculated again varies depending on the insurer, and on whether and to what proportion your scholarship is regarded as income liable to social security contributions. In this case, too, it is advisable to inquire with your insurer and if necessary, with other insurance providers. Depending on the amount of your scholarship and the method of calculation used by the health insurance provider, the health insurance contributions for doctoral scholarship holders vary between 80 and 250 EUR per month.

If you belong to the family of a fully insured health insurance member, you may be eligible for free co-insurance. This applies to children up to the age of 25 and to spouses or partners in a registered civil partnership of people with full statutory insurance.

With regard to **unemployment insurance**, doctoral candidates who are not in employment, i.e. scholarship holders, freelancers or low-income earners, are exempt from making contributions and in consequence do not acquire entitlement to unemployment benefits (ALG I).

Are you already entitled to unemployment benefit (ALG I) and are now planning to take advantage of a longer scholarship? If so, it will be worth briefly registering as unemployed before the scholarship starts (one day of unemployment is already

enough to do this). By doing so, you will ensure

that your remaining entitlement to unemployment

benefit expires only after four years, and not already after one year of receiving your scholarship.

TIP



In order to secure your livelihood after the end of your scholarship or period of self-employment / self-financing, doctoral candidates can therefore only apply for ALG II, which is significantly lower than ALG I, and is granted only from the date you submit your application, and not retroactively.

#### Insurances

**Accident insurance**: During your academic work as a doctoral candidate, you are covered by different types of accident insurance, depending on your status. While properly enrolled doctoral candidates and university employees doing doctoral degrees are insured through the university against accident, this does not apply to external doctoral candidates. The insurance covers all activities directly related to your employment or your qualification project, including journeys to work, business trips and research stays outside the university.

External doctoral candidates, for example, scholarship holders who are not enrolled as doctoral students, or who are employed by a non-university employer, are covered by statutory accident insurance. But this is only the case as long as they are on TU Dresden premises. This means that in the event of an accident on the way to or from the institution – even during a "business trip" – there is no accident insurance cover.

As regards **personal liability insurance**, too, your particular status as a doctoral candidate is the decisive factor. For doctoral candidates with employee status, the university pays for damage to others or to the property of others incurred during working hours; naturally, only if gross negligence cannot be proven.

For doctoral candidates who are not employees of TU Dresden, there is no employer's liability insurance by TU Dresden, even if TU Dresden itself acts as scholarship provider. For this reason, **taking out personal private liability insurance is recommended** for scholarship holders. With regard to the insurance cover granted, you should make certain that the risk of damage to property belonging to TU Dresden is explicitly covered by the insurance.

In certain circumstances, you can deduct costs related to your doctorate from your tax. Please make sure you seek advice on individual, detailed queries from a tax expert.



### Information for international doctoral candidates

If you plan to return to your home country after your research stay, please take into account the following considerations:

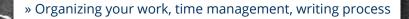
- If I am paying pension and unemployment insurance contributions as part of an employment contract, how and in what form might I be able to claim these entitlements at a later date?
- Which types of insurance are most suitable or which policies from my home country are even valid in Germany?

TU Dresden's » Welcome Center will be happy to advise you on these matters.



**DURING THE** 

**DOCTORAL PROCESS** 



- » Supervision relationship
- » Cross-disciplinary training and soft skills
- » Research stays abroad
- » Compatibility of a doctorate and family
- » Doing a doctorate if you have a disability
- » Coping with crises & conflicts
- » The Doctoral Council

## 3.1 Organizing your work, time management, writing process

Have you decided to do a doctorate and was your application for a scholarship or a position successful? If this is the case, then it is now time to think about the actual implementation of the doctoral project. The overall conditions for working on your dissertation can differ considerably, depending on the context of the doctorate.

Particularly when doing an individual doctorate, it is important that you are aware of issues relating to **organizing your work** and to **time management**. Active networking with other doctoral candidates in your field in doctoral colloquia or being affiliated to a doctoral degree program can be very helpful for your individual doctoral degree process and also for the exchange of ideas regarding content.

Why not attend the » <u>Graduate Academy's</u> <u>relevant workshops</u>? Here, you can also exchange ideas and experiences and network with other doctoral candidates.

TIP

Probably the greatest challenge facing those doing an **individual doctorate** while being employed by the professorship or the institute of their supervisor, is to strike a balance between teaching and research activities that are not related to their doctoral studies and the work on their own doctoral project. Make sure you speak with your supervisor about clear arrangements concerning working hours in order to create free time for your own dissertation project. We recommend that you

conclude a **supervision agreement** with your supervisor at the beginning of your doctorate (a sample supervision agreement is available on the GA website).

If you are pursuing your doctorate in a structured program, you will generally be integrated into a group of doctoral candidates. You will also have to report regularly on the progress of your work. In structured programs, team supervision (by at least two professors) has now been widely implemented. As a result, it is easier for doctoral candidates in structured programs to complete their doctorate within the stipulated period (usually 3 years). However, in doing your doctorate so quickly, you may have less opportunity to gather, for example, teaching experience. If you want to pursue an academic career after your doctorate, then knowledge in such areas is indispensable. Use every available opportunity to gain experience in teaching and project management, as well as to publish and to participate in conferences.

The writing process involved in pursuing a doctorate makes special demands on scheduling and self-organization. Sooner or later, doing a doctorate always means writing. Ideally, however, this should not be left until you are writing the final dissertation text. The "research first" and then "write up" approach works well for some. For others, it is asking too much, leading, at worst, to procrastination and writer's block. You should make writing an integral part of your doctoral process right from the start, by employing it effectively: To find your topic and narrow it down, to structure and order, to produce the rough draft(s), and ultimately, to write the final version of your dissertation.

Support in the form of a writing advisory service, special workshops, writing groups and a quiet place to write is available from the »

Graduate Academy Writing Lab.

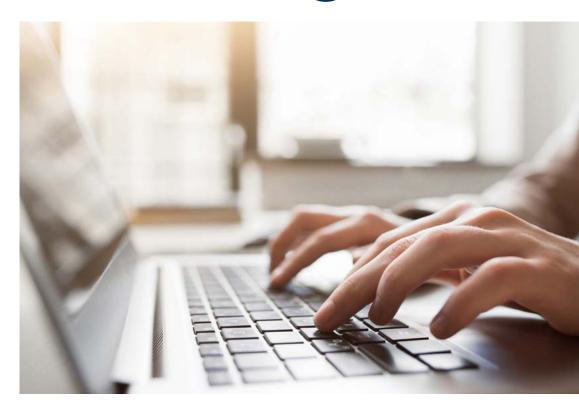
TIP

You should also already be aware of the **rules of good scientific practice** at the beginning of your research and writing. In this way, you will avoid scientific misconduct in dealing with data and sources, and ensure that your work is free from plagiarism.

You can download the current » Guidelines for Safeguarding Good Scientific Practice, for Avoiding Scientific Misconduct and Dealing with Violations at TU Dresden from the Graduate Academy website.

The Graduate Academy also regularly offers seminars and workshops for doctoral candidates and postdocs on this important topic.

TIP



## 3.2 The supervision relationship

Along with time, money and motivation, the relationship between you and your doctoral supervisor is another important criterion for the success of your doctoral project.

The responsibilities of the doctoral supervisor include regular individual **supervision meetings**, which should take place at least once a semester. If you are a research associate at the professorship of your supervisor, you should pay particular attention that the focus in these supervision meetings is on issues relating to your doctorate. Make sure you discuss all subject-related questions relating to your doctorate and ask for information on how to proceed and for feedback on your research results, sections of text or draft chapters.

At the beginning of your doctoral degree process, it is advisable not only to discuss subject and content-related issues, but also to clarify

some **organizational questions**. These might include, for example:

- What are the specific conditions regarding my work and my doctorate? Will I have enough freedom for my doctorate, in addition to working at the professorship?
- Are the resources that I need available for my research (material, technical infrastructure, student assistants, travel allowances, etc.)? Might I have to pay certain costs myself or can I apply for funding?
- To what extent can I participate in continuing education – both in terms of crossdisciplinary events and those specific to my doctoral project?
- How can my supervisor open doors to the scientific community for me and set up contacts with relevant scientists or discussion networks and specialist groups?
- To what extent can work on publications and presenting papers be integrated into the doctoral degree process?

Furthermore, doctoral supervisors are, of course, responsible for the final assessment and grading of your thesis. Ideally, your super-

Write a short report after each supervision meeting and send this also to your supervisor. It will give you a good starting point for your next meeting, and you can refer back to agreements made. In the case of team supervision, perhaps it is even possible for a third person (e.g. a fellow doctoral candidate from the structured program) to write the report and then to send it to all those involved

TIP

visor will also help to further your potential career in academia, support you during trips to conferences and with (joint) publications, and open doors for you to the scientific community in your field.

Beyondthis, however, there are no binding guidelines for the way the supervision relationship is designed, and every doctoral supervisor will develop their own style of supervision. While some doctoral candidates are very closely supervised and receive extensive information on how to implement their doctoral projects, others will be given the greatest possible freedom and they will receive only little feedback.

Against the backdrop of this range of supervision styles, it is all the more important that you discuss with your supervisor what form the contact and the give and take of information should have and what the specific conditions for the supervision relationship should be right at the beginning of your doctoral degree.

Concluding a written supervision agreement is definitely to be recommended for this purpose, and is indeed recommended for all doctoral candidates at TU Dresden in the » Guidelines for Safeguarding Good Scientific Practice, Avoiding Scientific Misconduct and Dealing with Violations The conclusion of such an agreement is also a prerequisite for your membership in the Graduate Academy.

The agreement contains precise specifications

- regarding the mutual rights and obligations.
- regarding the type and frequency of the joint supervision meetings,
- regarding the necessary qualification requirements, if applicable, and
- regarding the observance of good scien-

tific practice,

 as well as a work plan and timetable for your doctoral project.

The Graduate Academy has provided a

» Model Supervision Agreement for you on their website.

TIP

This increases the transparency and binding nature of the supervision relationship for both parties, even if no legal claims can be derived from the agreement.

If your supervisor offers **doctoral colloquia** or **seminars**, then make sure you utilize these opportunities: Present the work you have done on your dissertation so far and discuss it with the group. Doctoral candidates doing an individual doctorate, who may otherwise be less involved in the scientific context, benefit from these opportunities for networking and feedback.

Talk to your supervisor, preferably at the beginning of your doctorate, about involving a second supervisor. They can give you valuable feedback. A different perspective is particularly important for interdisciplinary doctoral projects.

TIP





## 3.3 Cross-disciplinary training and soft skills

Not only your expertise but also your **key competences** are, in the true sense of the word, the key to successfully completing "Project Doctorate". However, cross-disciplinary qualifications are also invaluable with a view to the time afterwards, within or outside the academic world. Take advantage of the opportunity to continue your cross-disciplinary education during the doctorate.

Additional qualifications, such as leadership and management competences or techniques for moderating and giving presentations, also offer you a clear advantage when you enter the world of work at a later stage – regardless of whether your journey takes you towards academia or towards non-university career paths.

Are you a member of the Graduate Academy? Then you can take part in up to three free seminars and workshops per semester from the broad spectrum of the » GA qualification program. In addition, the » Centre for Continuing Education also offers numerous courses, especially on university didactics.

TIP

## 3.4 Research stays abroad

Science is international, and a worldwide network will set the tone for your career. Hence our advice: Use the time when you are doing your doctorate for a **research stay abroad**. You will enhance your intercultural competence, expand your professional and personal networks and improve your language skills. There are, then, several good reasons for using the time when you are working on your doctorate for a research stay abroad. Of course, this "detour" should always involve a specific benefit for your research and help you advance your doctoral project.

Before you pack your bags, careful, long-term planning is crucial. Ask your supervisor for their consent and support. It is also important to have links to a university or research institution abroad or to initiate contacts for a stay involving fieldwork.

You can find financial support for your stay abroad, for example:

- within structured programs,
- as a holder of scholarships provided by the "Begabtenförderungswerke" (organizations for the promotion of young talent),
- at the DAAD, as part of the program offering short-term grants for doctoral candidates,
- as a member of the Graduate Academy, within its funding programs "Travel Grants for Short-Term Research Stays Abroad" or "greatl<sub>ipidall</sub> (group2group exchange for academic talents).

Participation in international conferences and meetings, too, gives you the opportunity to make important contacts with the international research community and to present your own initial research results to an international Guide for doctoral candidates at TU Dresden Important aspects during the doctoral process

audience of experts. To cover the costs for participation in international conferences and meetings, which can sometimes be considerable, the following options, among others, are available:

- costs are covered by the supervising professorship
- costs are covered within structured doctoral programs,
- travel grants for holders of scholarships from organizations for the promotion of young talent,

- travel awards for conferences, symposia and workshops for members of the Graduate Academy,
- costs are covered by the DAAD within their programs "Kongressreisen" (trips to conferences) and "Vortragsreisen" (trips for giving lectures/presenting papers),
- travel grant from the » <u>Association of Friends and Supporters of TU Dresden</u>.

If you have any questions regarding funding options for your research stay abroad, please do not hesitate to contact the Graduate Academy Team. Have a good trip!



## Checklist for your research stay abroad

#### Content-related preparation

- ☑ Who is doing research in your field? And what is the best way of contacting them? (via your supervisor, by email, during a conference, etc.)
- ✓ Does your institute already have contacts with universities / working groups abroad?
- Can supervisors / postdocs make any recommendations?
- What added value does the research stay have for you in professional and personal terms?
- ✓ What is the working language at the host institute?
- Will you have your own workplace at the host institute? Will you have access to the laboratories, libraries, archives, etc. that you need?
- ☑ What period of time would be best for the research stay? Are your potential work plan and the timetable coordinated with the host institutions and the scientists there?

#### **Organizational preparation**

- What are the costs for traveling to and from your destination? Are you planning further trips and excursions?
- ☑ Which entry and residence regulations (VISA) do you have to comply with? Do you need a passport? (Please bear in mind deadlines and validity)
- ☑ How high is the cost of living and how expensive will your accommodation be?
- ☑ What type of accommodation is available? How can the rent be paid (cash, bank transfers, etc.)?
- ☑ What dates do you need to keep in mind? (e.g. application deadlines for scholarships)
- If you are enrolled as a doctoral student at TU Dresden: Does it make sense to apply for a semester of academic leave?
- ☑ If you are doing your doctorate as a non-tenured employee: Have you spoken to your superior about your research stay? Can you bring forward or postpone certain tasks? Will someone need to stand in for you during your absence?
- ☑ What insurances do you need? (possibly an additional international health insurance policy, travel cancellation insurance, luggage insurance)
- What prophylactic health measures (vaccinations) do you need to take before traveling? Should you take an international vaccination certificate along with you?
- How can you organize financial matters in the host country (opening a bank account, international bank transfers, credit card use)?
- ☑ Will you need an international driver's license?
- What matters do you need to sort out in your home country before departure? (giving notice that you are leaving your apartment or sub-letting your apartment, applying to have your mail forwarded, organizing the payment of regular bills, etc.)
- ☑ Have you made copies of all important documents (e.g. passport)?

Guide for doctoral candidates at TU Dresden Important aspects during the doctoral process

## 3.5 Compatibility of a doctorate and family life

Sometimes, the period during which you are working on your doctorate coincides with another exciting stage of your life: Starting a family. Financial matters and extending the duration of the doctorate and / or employment contracts play a decisive role when it comes to balancing parental tasks and your doctorate.

## Parents doing a doctorate while in employment

If you are doing your doctorate in a position financed by the university budget or by third-party funding, you are entitled to parental leave, just like any other employee. Simply hand in the application form for parental leave (Antrag auf Elternzeit) to the Directorate responsible for personnel. Based on the **Dundeselternzeit- und** Elterngeldgesetzes (BEEG - federal law governing parental leave and parental allowances) employees can take a leave of absence up to the completion of the third year of life of their child. Up to 24 month of parental leave can also be taken between the third birthday and the completion of the eighth year of life of the child. During the first 14 month of life of the newborn child, the parents can make demands on a parental allowance of up to 67 per cent of the income they were paid in the period of twelve months before the birth of the child. One parent can receive parental allowance for a maximum of twelve month.

Under the new regulations of ElterngendPlus (parental allowance plus), parental allowance can be combined with part time work. The maximum period of entitlement can be extended by turning one moth of parental allowance

into two months of ElterngeldPlus allowance. The ElterngeldPlus allowance varies depending on the income of the part time work, maximum ElterngeldPlus allowance is half of the monthly parental allowance the respective parent would be entitled to.

If the parental leave falls within the duration of the concluded employment contract, a return to the place of work is guaranteed by their employer.

Frequently, the question arises whether it is possible to extend fixed-term employment contracts by the duration of the interruption caused by family obligations. For scientific staff an answer to this question can be found in the Wissenschaftszeitvertragsgesetz (Wiss ZeitVG - law on fixed-term contracts in higher education and research). See the section relating to families (§2 para. 1. clause 3). This is a provision allowing academic staff to extend the employment contract to the extent that parental leave has been taken. If a fixed-term employment contract expires, you can get an extension for the relevant time. Please hand in an application for this to » Directorate 2: Personnel. WissZeitVG §2 para. 1. clause 4 also offers another family-oriented component: The maximum duration of a fixed-term can be extended up to two years per dependent child. This rule aims to balance out the multiple load of doctoral candidates who care for a child while doing a doctorate. However there is no legal claim that this has to be granted in every case. You can hand in an application for extension in accordance with WissZeitVG §2 para. 1. clause 4 stressing the multiple load to » Directorate 2: Personnel.



## Parents doing a doctorate while receiving a scholarship

Doctorate, scholarship and child(ren)? Here, the situation is less clearly regulated and varies depending on the scholarship provider. Since a scholarship is not an income subject to mandatory social insurance, scholarship holders are legally entitled to the basic amount of parental allowance of 300 EUR per month for 12 (+2) months. Some scholarship providers also award family allowances and / or grant an extension of the funding period.

As a scholarship holder, you may be at a financial disadvantage compared to employed doctoral candidates, but your situation also has advantages when it comes to balancing family life and the doctorate. Apart from working on your dissertation, you usually have no additional workload from teaching, administrative work or research that is not related to your doctorate.

### Childcare

Reliable childcare is crucial. The City of Dresden provides and allocates the majority of childcare places. You can find all relevant information online at the » Parents Portal of the City of Dresden. But TU Dresden also offers places in » childcare facilities close to the campus for children of its staff members.

You have an important appointment and urgently need a babysitter? Then why not take advantage of the flexible childcare at TU Dresden, the short-term childcare at the Carus Campus or the short-term childcare facility "Campus-Nest" of the Studentenwerk Dresden.

TU Dresden's Diversity Management Unit provides information on all aspects of the compatibility of academic career and family on the webpages regarding » Family Friendliness.

The » CampusBüro Uni mit Kind (campus office - studying with children) provides even more support and additional information.

## 3.6 Doing a doctorate if you have a disability

People with disabilities, still face a series of difficulties when pursuing a doctorate that extends the usual loads of every day research work. Stigmatization, fear and prejudice, the lack of education and bureaucratic obstacles may all play a role in this.

By now, though, there are numerous specially tailored forms of support to assist people with disabilities or chronic illnesses while they are pursuing their academic qualifications.

At TU Dresden, the » <u>Diversity Management</u> <u>Unit</u> coordinates all activities in the area of inclusion. You will find an overview of existing advisory and support services on the relevant websites.

The » Representative for Students with Disabilities and Chronic Illnesses represents the interests of students at TU Dresden who have disabilities and / or are chronically ill, and provides advice on all questions specific to studying with an impairment.

The Graduate Academy provides support for doctoral candidates or students who are interested in doing a doctorate with disabilities or chronic illnesses. This includes, for example, tailor-made coaching services or special support for those who would like to participate in Graduate Academy workshops.

We are here for you and will be happy to answer your questions.

TIP

The » Interest Group "Studying and Disability" (IGB) acts as a point of contact for students with disabilities or chronic illnesses and provides individually tailored personal advice. The » Studenternat (Student Council) also offers individually tailored advice for students with disabilities or chronic illnesses.



## 3.7 Coping with crises and conflicts during the doctorate

Almost all doctoral candidates are confronted by **difficulties** and **frustrations** at some point during their doctorate. These can include, for example, the absence of visible successes in the research process, lack of feedback and support, difficult financial conditions, writer's block or time pressures. Perhaps a brief change of scenery will already help you here, or reflecting on your original motivation for writing your dissertation: Curiosity, a strong desire to do research and a thirst for knowledge.

If, however, you feel that you are running out of self-motivation, then seek support. Talk about your difficulties with "fellow sufferers" who are also doing doctorates. You will find that you are not alone.

You are also very welcome to come to the Graduate Academy, the central point of contact for doctoral candidates at TU Dresden. You can arrange an appointment with us and discuss all questions, problems or even crises related to your doctorate confidentially with trained advisers. As a member of the Graduate Academy, you also have the option of **one-to-one coaching**. Through a process of several coaching sessions, you will receive individually tailored help in tackling problems and in developing your own strategies for action and finding solutions.

Generally, you should always try to talk with your supervisor in periods of crisis and if you have doubts about your doctoral project. However, if this relationship is itself part of the problem and the **conflicts** are of a nature that cannot be resolved together with your doctoral supervisor, then there are also points of con-

tact that you can turn to in confidence. First and foremost, these are the » <a href="mailto:ombudspersons">ombudspersons</a> for matters relating to junior scientists, appointed by each Faculty.

If there is a suspicion that the **Guidelines for Safeguarding Good Scientific Practice** are being violated, the » **Ombudsperson of TU Dresden** can be consulted. Please contact the Graduate Academy before considering this step. The advice we give you is confidential.

In the event of problems **related to employment law** involving superiors, the » **Personalrat (Staff Council)** of TU Dresden is there to help with your questions. You can consult them if you are employed at TU Dresden.

If conflicts arise regarding **gender equality issues**, the » **Gender Equality Representatives of TU Dresden** and the » **Equal Opportunities Officers in the Faculties and Central Academic Units** are the people you should contact.

Are you struggling with **mental health problems** in the course of your doctorate? Then please do not hesitate to contact the confidential » **psychosocial support service of the Studentenwerk Dresden**.

The » Map of advisory services at TU Dresden for the areas of gender equality and family friendliness gives you a comprehensive overview of all the services at TU Dresden related to the topics of » Conflict and psychological counselling as well as » Compatibility of family and career and » Career advice.

#### 3.8 The Doctoral Council

The doctoral candidates at TU Dresden are part of a varied and very diverse group, ranging from full-time employees at a professorship, through scholarship holders, to external doctoral candidates employed in a company. However, doctoral candidates often network and exchange ideas only within their doctoral study group or, at most, within a single department. It is, though, often an interesting and enriching experience to take a look at the bigger picture, beyond your own specific field.

Cross-faculty networking of doctoral candidates has been given a new impetus with the founding of the Graduate Academy: Meet doctoral candidates from a variety of disciplines at the Graduate Academy's workshops and events, get talking to each other and exchange ideas. Learn together and from one another while, without any extra effort, networking at the same time.

Moreover, the doctoral candidates at the Graduate Academy have the opportunity to elect for one year up to 23 representatives from their ranks to the Doctoral Council. This institution represents the broad spectrum of disciplines at TU Dresden.

The Doctoral Council, also known as DDocs, is primarily concerned with acting in the doctoral candidates' interests and helping to improve the conditions for those doing their doctorates at TU Dresden. In addition to work relating to university policy, the DDocs also wish to interact with you on an equal footing, available to all current and prospective doctoral candidates for questions on doing a doctoral degree in Dresden.

The spokesperson of the Doctoral Council and one of their deputies are members of the Executive Committee of the Graduate Academy for the duration of their term of office, and regularly attend Executive Committee meetings. The Senate of TU Dresden has granted the spokesperson of the Doctoral Council the right to speak as a guest at its meetings. In this way, the elected representatives of the GA's doctoral candidates can bring their interests and concerns directly to bear in important discussions and decision-making processes.

A number of events and activities, such as the bi-weekly PhD Breakfast at the "Zebradiele", the monthly Science Beer or the annual Junior Scientist Party, provide all doctoral candidates, Master's students interested in doing a doctorate and postdocs with the opportunity to exchange ideas in convivial company, to address problems and to give each other valuable hints. In addition, the DDocs are cross-linked with other bodies representing doctoral candidates in Dresden as well as at other universities. Active participation in the Association of PhD Representatives of Central Germany (VMPV) better understanding of the situation and of the problems of doctoral candidates at and beyond TU Dresden.

Do you have any questions about the Doctoral Council or would you like to play an active part in it?

» Webpages of the Doctoral Council.

The Doctoral Council has also published the "DDocs PhD Survival Guide". This is their overview of important facts and figures which you should know to 'survive' your doctorate at TU Dresden. You can download the DDocs PhD Survival Guide at the » webpages of the Doctoral Council.

And, by the way, with this booklet the DDocs won the best practice award for "Internationalization of study and teaching" at TU Dresden.

Congratulations!

TIP





Guide for doctoral candidates at TU Dresden Finalization & follow-up

## 4.1 The final stage of the doctorate

The mortarboard is within your grasp, the end of the doctorate is in sight and the very last resources of energy are being mobilized. The remaining months until the doctoral thesis is submitted are experienced as a feat of strength by many doctoral candidates.

Right at the end, "writing up", reworking and formatting the written work often proves to be more time-consuming and more complex than expected. Efficient scheduling, a sufficient degree of freedom as well as discipline in keeping focused are particularly important during this final stage – often easier said than done.

But in this case, too, the Graduate Academy offers "first" – or to be more exact – "last aid"! Now, of all times, you are stuck with writer's block or you are unable to find the peace of

mind to work at your desk? Come along to the Graduate Academy for advice on writing or make use of the offers and work places of the » GA Writing Lab.

Has your work contract or scholarship already expired? Apply for a » **Grant for the Completion Phase of your Doctorate**. This financial support from the Graduate Academy allows you to concentrate fully on the completion of your doctorate.

Are you writing your dissertation in a language other than your native language, and you are not always sure of grammatical and linguistic correctness? Then you can apply for funding for proofreading at the Graduate Academy. You can find more information and the application form on the » Graduate Academy's webpages.

## 4.2 Doctoral degree procedure and final examination

Your doctoral thesis is finished and you have agreed with your supervisor to submit it. Congratulations! You can now make an application to open the doctoral degree procedure. This needs to be addressed in writing to the Doctoral Committee or the Dean of your Faculty.

Usually, the following documents have to be submitted together with your application:

- résumé/ c.v.,
- certified copies of university certificates (sometimes including the university entrance qualification),
- several copies of the dissertation,

- written statement attesting that you and you alone have written the dissertation,
- if applicable, a certificate issued by the police, stating that you have no criminal record.

You can find more details about this in the » **Doctoral Degree Regulations** of your Faculty.

Your documents are complete and you have met all the requirements for the doctoral degree? The Doctoral Committee will now open your doctoral degree procedure. The expert reviewers and the members of the **Doctoral Commission** are appointed. Your doctoral thesis will be assessed by at least two expert reviewers. All other requirements are stipulated in the doctoral degree regulations pertaining to your Faculty.

The final act of the doctorate either consists of an oral examination ( 'Rigorosum' or viva) and the public defense of the dissertation ( 'Disputation') or only of the 'Disputation'.

The individual Faculties have different arrangements for this in their doctoral degree regulations.

The date of your final examination is set by the Doctoral Committee and will be announced at least 14 days in advance. Experience shows that there may be a period of three to six months between submitting the thesis and the defense. Some doctoral degree regulations also provide clear guidelines concerning this.



Guide for doctoral candidates at TU Dresden Finalization & follow-up

## 4.3 Publishing

It is only after you have published your dissertation that the doctoral degree certificate can be awarded to you, and only then are you entitled to bear the title of 'Doctor'. You usually have a maximum of one year after the disputation to publish the dissertation. It is very important that you keep to this timetable; otherwise the doctoral degree procedure may be terminated without the granting of an academic degree. Here, too, taking a look at the doctoral degree regulations that are valid for you will provide clarity.

There are different options for publishing your dissertation:

- handing over a number of printed and bound copies of the doctoral thesis to the Faculty, as stipulated in their doctoral degree regulations,
- and to the Saxon State and University Library (SLUB),
- electronic, Open Access-based publication on the SLUB's academic transcript server (Qucosa),
- publication by a commercial publisher.
- self-publishing.

The SLUB provides information and advice on the subject of academic writing and publishing. The electronic, Open Access-based publication of your dissertation can be done directly and free of charge via » Qucosa, the document and publications server of the SLUB This type of publication is recommended by the SLUB and by TU Dresden. Alternatively, you can also publish your dissertation with a publishing house. However, this often entails considerable costs, which can range between 2,000 and 5,000 EUR, depending on the subject area and the publisher. In the end, however, you do get to hold your own printed book in your hands.

An overview of further funding opportunities for publishing your dissertation is available on the » Webpages of the Graduate Academy | Funding.

You can apply to » <u>VG Wort</u> for example, to have your costs reimbursed. This way, you can recover part of the publication costs.

TIP

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## 4.4 Career paths: what comes after the doctorate?

You are now officially allowed to use the two letters with the period in front of your name and you already know exactly how your career is going to continue. Congratulations! Or have you not yet started thinking about which path to take? Academia or business? Major corpora-

tion or small or medium-sized enterprise? Public sector or your own company?

In the final, work-intensive phase of the dissertation in particular, there is often little time to deal comprehensively with this issue. Nevertheless, it makes sense to start thinking early on about career options after your doctorate, ideally even before you decide to do a doctorate. If you have a clear goal in mind, you can already make decisions during the doctoral degree process, and these will benefit you afterwards:

- In your choice of subject and supervisor, are you focusing more on possible applications and proximity to business or on academic relevance and visibility?
- During the doctoral phase, will you be collecting professionally relevant additional qualifications which are required and useful when you enter the (non-university) employment market (e.g. knowledge of business administration, leadership skills, project management) or for embarking on an academic career (teaching and publishing experience, acquiring third-party funding)?

Regardless of how intensively you have already dealt with these questions during the course of the doctorate, in the end you will be faced with this fundamental decision: Do you want to continue to work in academia? Or are you aiming for a career in the non-academic employment market?

A glance at the statistics reveals that the vast majority of doctoral candidates will turn their backs on the university sooner or later. The **academic career** culminating in the professorship is often still considered the ideal route, but in reality only a tiny minority of the estimated 200,000 doctoral candidates in Germany will take this path (Bundesbericht Wissenschaftlicher Nachwuchs 2017).

What does this mean for your personal career plan? Now you have successfully completed

your doctorate, an academic career is open to you. However, in order to pursue it emphatically and successfully through to its conclusion, namely the appointment to a professorship, you will need to have above-average commitment, perseverance and a high degree of motivation whilst at the same time accepting uncertainties, high levels of mobility and occupational risks; aspects which, of course, can also play a role in the non-university employment market.

Entry into the **business world** is no longer merely a "Plan B" for those with doctorates. They are in great demand in the non-academic employment market, as current studies and statistics on the career paths of doctoral candidates reveal (Bundesbericht Wissenschaftlicher Nachwuchs 2017).

What is most important here, is that you have a clear idea of what kind of cross-disciplinary competences you possess in addition to your professional expertise, and the ability to convey this convincingly.

The Graduate Academy also offers you numerous workshops as well as individually tailored advisory sessions and coaching in the areas of career planning and job application

TIP

All that now remains for us to say is: Whatever path you choose or have chosen already, we - the team at the Graduate Academy - will be very happy to support you!!



#### Services from A to Z

#### Admission Office (Immatrikulationsamt)

Please contact the Admission Office if you are holding a German university degree and would like to enroll as a doctoral student at TU Dresden.

- ⇒ Bürogebäude Strehlener Str. (BSS), 6th floor | 01069 Dresden
- **\*** +49 351 463-42000
- \* servicecenter.studium@tu-dresden.de

### Association of Friends and Sponsors of TU Dresden e.V.

The Association of Friends and Sponsors of TU Dresden e.V. offers upon application bridging and completion funding for the doctoral process as well as mobility grants for conference trips.

- ☐ Gesellschaft von Freunden und Förderern der TU Dresden | 01062 Dresden
- **+**49 351 463-37155
- → gff@mailbox.tu-dresden.de

## CampusBüro Uni mit Kind

The CampusBüro Uni mit Kind is a cooperation between Studentenwerk Dresden and TU Dresden and provides information and advice concerning the combination of an academic career and family life.

- ⇒ Verwaltungsgebäude 1 | George-Bähr-Str. 1d | 01069 Dresden
- **\*** +49 351 463-32666
- decampusbuero@studentenwerk-dresden.de

## **Centre for Continuing Education (ZfW)**

The Centre for Continuing Education offers training and advice to the academic staff of TU Dresden. Seminars and workshops are held, depending on the target group, in German or English and focus on university didactics.

- ⇒ Bürogebäude Strehlener Straße 22/24, room 560 | Strehlener Straße 22 | 01069 Dresden
- **+**49 351 463-37811
- d zfw@tu-dresden.de

### **Dual Career Service for International Junior Scientists**

The Dual Career Service for International Junior Scientists offers individual career counselling as well as monitoring and supports the families of these researchers with their relocation to Dresden.

- ⊃ Dresden Welcome Center | Schweriner Str. 1 | 01067 Dresden
- **+**49 351 463-37663
- gabriele.feyler@tu-dresden.de

## **Equal Opportunities Officer and Women's Representative of TU Dresden**

The Equal Opportunities Officer of TU Dresden, Dr. Jutta Luise Eckhardt, coordinates the equal opportunities actions of the Faculties and central units and provides individual information and advice concerning equal opportunities issues.

- ⇒ Weberbau, room 234 | Weberplatz 5 | 01217 Dresden
- +49 351 463-36423
- degleichstellung@tu-dresden.de

## **Equal Opportunities Officers of the Faculties**

The respective Equal Opportunities Officers of the Faculties also offer individual advice concerning equal opportunities issues, reconciliation between of work and family life and conflicts in the work or study place.

An overview of all contact persons at the Faculties can be found at the » <u>webpages of the TU</u>

<u>Dresden.</u>

### International Office (Akademisches Auslandsamt)

The International Office of TU Dresden is the central contact point for all requests regarding international mobility of students and researchers. Prospective doctoral candidates holding a foreign citizenship or who have obtained their university degree abroad have to submit their documents to the International Office for inspection before registering as a doctoral candidate at one of TU Dresden's Faculties.

- ⇒ Bürogebäude Strehlener Str. (BSS), 6<sup>th</sup> floor, room 671 | 01062 Dresden
- ☐ Technische Universität Dresden | International Office | 01062 Dresden
- **\*** +49 351 463-39607
- figure 1.00 studium.international@mailbox.tu-dresden.de

## Media Centre (MZ) and Centre for Information Services and High Performance Computing (ZIH)

The Media Centre (MZ) at TU Dresden is a research facility and a service provider for e-learning, and multi-media applications. The ZIH is responsible for the complete IT communication infrastructure at TU Dresden and provides central servers and IT services. These two units hold seminars on the following topics:

- Introduction and advanced courses on the virtual teaching and learning platform OPAL
- Web content management systems (TUD Web-CMS)
- Various software courses (i.e. Microsoft Access)

These workshops are taking place in German language and are available for free to all employees and students of TU Dresden.

- ⇒ MZ: Strehlener Straße (BSS), 4. OG, Raum 452 | Strehlener Str. 22/24 | 01069 Dresden
- +49 351 463 32772
- medienzentrum@tu-dresden.de
- ⇒ ZIH Service Desk: Andreas-Pfitzmann-Bau, APB 036 | Nöthnitzer Str. 46 | 01069 Dresden
- **\*** +49 351 463-40000
- servicedesk@tu-dresden.de

## **Ombudsperson of TU Dresden**

The Ombudsperson of TU Dresden, Prof. Dr. Achim Mehlhorn, is your contact person, advice giver and mediator in all cases of suspected scientific misconduct.

- Ombudsperson Prof. Dr. Achim Mehlhorn
- +49 351 463-39980
- achim.mehlhorn@tu-dresden.de

## **Ombudspersons for young scientists of the Faculties**

All TU Dresden Faculties have nominated ombudspersons for matters concerning junior researchers, who serve as accessible, confidential contact persons for doctoral candidates in particular and mediate in problematic situations.

An overview of all ombudspersons of the Faculties can be found at the » webpage of the TU Dresden.

### Saxon State and University Library Dresden (SLUB)

The SLUB offers, besides the lending of books and other media, training and individual advice on topics such as literature research and management, academic writing, and publication strategies. The seminars take place in German language.

- ⇒ Zellescher Weg 18 | 01069 Dresden
- Ausleihe: +49 351 4677-420 | Information: +49 351 4677-390
- † information@slub-dresden.de

#### **Staff Council**

The Staff Council is the elected body of employee representatives for TU Dresden's staff members. The members of the Staff Council offer confidential advice to all TU Dresden employees on problems with regard to employment related issues.

- Seminargebäude 2, Raum 113 | Zellescher Weg 20 | 01069 Dresden
- **\*** +49 351 463-33876
- nersonalrat@tu-dresden.de

## Startup initiative dresden | exists

The startup initiative dresden|exists offers advice and qualification to students and researchers concerning the application of research findings and the commercialization of a business concept in order to support startup and self-employment activities.

- Office TU Dresden: Hülsse-Bau, Nordflügel, room N 210 | Helmholtzstr. 10 | 01069 Dresden
   Office Faculty of Medicine: Research Administration | Augsburger Straße 9, Haus 110
- **+**49 351 463-35638

#### Studentenwerk Dresden

The Studentenwerk Dresden runs several canteens (Mensa) on different sites of the campus. Enrolled students of TU Dresden benefit from the convenient student rates.

- Studentenwerk Dresden | Anstalt des öffentl. Rechts | Fritz-Löffler-Str. 18 | 01069 Dresden
- **+**49 351 4697-50
- info@studentenwerk-dresden.de

## The Psycho-social counseling of the Studentenwerks Dresden

The Psycho-social counseling offers psychological counselling to enrolled (doctoral) students of TU Dresden in cases where personal difficulties occur with regard to studying and the doctorate, psychosomatic symptoms, substance abusing behavior, depressive states and other sorts of problems and crises..

- Psychosoziale Beratungsstelle | Studentenwerk Dresden | Schnorrstraße 8 | 01069 Dresden
- **\*** +49 351 4697-920
- nsb@studentenwerk-dresden.de

#### **TUDIAS - Language School**

TUDIAS provides a broad program of language courses, such as German as a foreign language.

- ⇒ Freiberger Straße 37 | 01067 Dresden
- **\*** +49 351 40470-102

#### **Welcome Center of TU Dresden**

The Welcome Center of TU Dresden is an important place to go for (prospective) international doctoral candidates. You can contact it already before your arrival in Dresden in order to prepare your entry in Germany and your first time in Dresden at its best. You can find comprehensive information on issues like visa and entry, health insurance, accommodation, opening of a bank account, etc. as well as check lists with the essential steps before and immediately after your arrival in Dresden on the Welcome Center's websites.

Furthermore, the Welcome Center organizes an exciting cultural and leisure time program. The Welcome Center Blog » <a href="ddcwelcome.wordpress.com">ddcwelcome.wordpress.com</a> provides actual information on upcoming cultural events in Dresden. In addition, the Welcome Center offers German classes for junior researchers of TU Dresden and of DRESDEN concept partner institutions.

- ⇒ Nürnberger Straße 31A | 01187 Dresden
- **+**49 351 463-34009
- welcome.center@tu-dresden.de

### **Welcome Center of the City of Dresden**

Also the City of Dresden runs a Welcome Center which is an important place to go for newcomers such as international junior researchers, especially from non-European countries. The Dresden Welcome Center is your contact partner for immigration issues, such as registration when you move to Dresden or the issuing of residents permits. Please visit the websites of the Dresden Welcome Center for more detailed information and a contact form.

- Schweriner Str. 1 | 01067 Dresden
- **\*** +49 351 4886051
- d akzess@dresden.de

## **Glossary**

### **Doctoral Commission (Promotionskommission)**

The Doctoral Commission will be constituted, upon nomination by the Doctoral Committee with the opening of your doctoral examination process, that means when you have submitted your thesis. The Doctoral Commission consists of a number of members predefined by the respective Doctoral Degree Regulations and includes, amongst others, both expert reviewers of your thesis and a chair person. The Doctoral Commission decides whether your dissertation will be accepted, it sets the date for the final exam (rigorosum and/or defense), communicates it to you at least 14 days in advance in written form and invites to the public disputation. The Doctoral Commission conducts the rigorosum if required, evaluates the dissertation, the rigorosum and the disputation and agrees on an overall grade for your doctorate.

#### **Doctoral Committee (Promotionsausschuss)**

The Doctoral Committee is the permanent board of the faculty responsible for all formal and legal questions regarding your doctorate, such as the decision whether you are accepted as a doctoral candidate or the opening of the doctoral examination procedure. The Doctoral Committee is appointed for a term of usually two years by the Faculty Council. It is composed by the dean, a predefined number of professors and academic staff of the faculty.

#### **Doctoral Office**

Your doctoral project is supported and monitored with regard to formal processes and requirements by the Doctoral Office of your Faculty. It is the place to go for you in order to apply for being accepted as a doctoral candidate or for submitting your thesis. But also during the doctoral process, you can always contact the Doctoral Office if organizational questions arise.

#### Disputation/defense

The disputation or defense (or viva) is an inherent part of the final doctoral examination at all Faculties of TU Dresden. It consists of a scientific presentation of your doctoral work of approx. 30 minutes and a subsequent discussion.

## German Academic Exchange Service (Deutscher Akademische Austauschdienst – DAAD)

The German Academic Exchange Service (DAAD) is a cooperation between German universities for the promotion of international exchange of academics. It supports the international mobility of German and foreign students and junior researchers offering a great variety of funding programs. You can search for scholarship programs and the respective application criteria according to specific target groups and countries using the DAAD scholarship database.

## German Research Foundation (Deutsche Forschungsgemeinschaft - DFG)

The German Research Foundation (DFG) is the major funding body for the promotion of research

at universities and publicly funded non-university research institutes in Germany. The DFG supports researchers at all stages of their scientific career. However, a successfully concluded doctorate is required for being eligible for DFG-funding. Within research training networks and DFG-funded research projects also doctoral candidates can be funded by the DFG.

#### **Graduate Schools (Exzellence Initiative)**

Graduate Schools have been established at German universities within the framework of the Excellence Initiative of the Federal and State Governments since 2005 with the aim to create optimal framework conditions for outstanding doctoral candidates within an excellent research environment. Graduate Schools are larger than DFG-funded research training networks, and cover a wider, more interdisciplinary oriented scientific area. Candidates for such programs are recruited internationally and by highly competitive selection processes and are usually funded by doctoral scholarships.

## Law on Fixed-term Contracts in Higher Education and Research (Wissenschaftszeitvertragsgesetz – WissZeitVG)

The Law on Fixed-term Contracts in Higher Education and Research regulates the conclusion of fixed-term employment contracts for academic or artistic staff at universities or non-university research institutes. It states, among other things, that the duration of a fixed-term contract should be adequate with regard to the qualification purpose of the employee such as a doctorate or that, in case of third-party-funded projects, the contract should be entered into for the whole duration of the project. The maximum duration of a fixed-term contract with the purpose of an academic qualification is six years until the conclusion of a doctorate and of additional six years after the conclusion of a doctorate (nine years in the field of Medicine).

## Monographic vs. paper-based (cumulativ) dissertation

At German universities, traditionally, a dissertation has to be written and submitted as a monography, that means as one book authored by a single doctoral researcher on a specific research topic. However, nowadays, a cumulative or paper-based dissertation is also accepted by many faculties. The paper-based dissertation consists of a series of less comprehensive scientific studies which have to be interrelated content-wise. The demands on such a paper-based dissertation differ from Faculty to Faculty with regard to the type of publication (article, paper, manuscript), the status of the publication (published, submitted, in preparation) as well as to the number and extent of the required publications.

## **Open Access**

Open Access stands for free access to scientific publications in the internet and aims at the enhancement of an equal participation of all citizens in scientific progress and at increasing the visibility and accessibility of research findings among researchers. TU Dresden promotes Open Access and has established an open access infrastructure together with the SLUB, which comprises advisory services, the documents and publications database Qucosa, Open Access publication funding and a legal assessment service.

### **Organizations for the Promotion of Young Talent**

The Organizations for the Promotion of Young Talent are funding bodies sponsored by the Federal Government which promote outstanding students and doctoral candidates throughout their academic qualification phase financially and through an extra-curricular program of workshops, seminars and networking events. Currently, there are 13 of such funding organizations which represent the cultural, religious and political diversity in Germany, like i.e.:

- Independent Organizations for the Promotion of Young Talent (i.e. the Studienstiftung des deutschen Volkes),
- Party-affiliated Organizations for the Promotion of Young Talent (i.e. Friedrich Ebert Foundation).
- Denominational Organizations for the Promotion of Young Talent (i.e. Cusanuswerk),
- Business related Organizations for the Promotion of Young Talent (i.e. Stiftung der deutschen Wirtschaft).

Not only an outstanding academic record but also proven wide-ranging extracurricular interests as well as social or political commitment are decisive when applying for a doctoral scholarship at one of the Organizations for the Promotion of Young Talent.

#### Research Assistants (Wissenschaftliche Hilfskraft – WHK)

Research assistants are employees at universities or other public research institutions who perform supporting tasks in research and teaching and the respective administrative processes. Unlike research associates, research assistants can be employed for maximum 19 hours per week. At TU Dresden, a university degree (i.e. Bachelor, Master, Diplom) or the enrollment as a doctoral student is a prerequisite to be hired as a research assistant.

## Research Associates (Budget-financed or third-party financed employment contracts)

Research associate positions **funded by university budget** are an integral part of the financial scheme of the university and are assigned to a professorship, an institute or a unit. They are announced publicly either as part-time or full-time positions and with a duration of usually three years. These positions are remunerated according to the Framework Collective Agreement for Public Service of the Federal States (Tarifvertrag für den Öffentlichen Dienst der Länder – TV-L), salary group E 13. Employee's tasks on such positions usually comprise teaching, supervision of students and research activities within projects run by the chair holder/PI.

If a professor or a postdoctoral researcher has secured **project funding from external funding organizations** such as DFG or the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung – BMBF), within this project third party funded positions can be offered to junior researchers. These positions as well are remunerated according to the Framework Collective Agreement for Public Service of the Federal States (TV-L), worktime is usually 50 to 100 percent of the regular weekly worktime (40 hours) and the duration of the contract is in most cases defined by the project duration. Employees on such positions are usually more involved in

research than in teaching. Generally, third party funded positions offer good framework conditions for your academic qualification and integration into the scientific community of your field of research, since the publication and the presentation of project results at conferences is often considered part of the job.

### **Research Training Networks (DFG-funded)**

Research Training Networks are structured doctoral training programs which have been established at German universities and funded by the DFG for maximum nine years already since 1990. The individual doctoral project is integrated into an overarching research focus and a qualification program. Research Training Networks are characterized by close supervision, interdisciplinary networks and an international working environment. Funding is grated by doctoral scholarships or employment contracts for a minimum of three years.

### Rigorosum

At some Faculties of TU Dresden, the rigorosum is still an inherent part of the final doctoral examination. It is an oral examination on various topics agreed upon in advance and of a duration of usually 45 minutes. Unlike the disputation, the rigorosum is not public.

## **Doctoral degrees awarded by the Faculties**

School of Science			
Faculty of Biology			
Faculty of Chemistry and Food Chemistry			
Faculty of Mathematics	Dr. rer. nat. Ph.D.*		
Faculty of Physics	PII.D."		
Faculty of Psychology			
School of Humanities and Social Sciences			
Faculty of Education	Dr. phil.		
Faculty of Law	Dr. iur.		
Faculty of Arts, Humanities and Social Science	Dr. phil.		
Faculty of Linguistics, Literature and Cultural Studies	Dr. phil.		
School of Engineering Sciences			
Faculty of Electrical and Computer Engineering	DrIng.		
Faculty of Computer Science	DrIng.		
	Dr. rer. nat.		
	Ph.D.*		
Faculty of Mechanical Science and Engineering	DrIng.		
School of Civil and Environmental Engineering			
Faculty of Architecture	DrIng.		
Facility of Chill Facility and a	Dr. phil.		
Faculty of Civil Engineering	DrIng.		
Faculty of Transportation and Traffic Science "Friedrich List"	DrIng. Dr. rer. pol.		
Faculty of Environmental Sciences	Dr. rer. silv.		
ractity of Environmental Sciences	DrIng.		
	Dr. rer. nat.		
	Ph.D.*		
Faculty of Business and Economics	Dr. rer. pol.		
School of Medicine			
Faculty of Medicine Carl Gustav Carus	Dr. med.		
	Dr. rer. medic.		
	Dr. med. dent.		
	Ph.D.*		

<sup>\*</sup> The title Ph.D. can only by awarded as part of a doctoral studies program.

