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## Dear doctoral candidates,

We are pleased that you are interested in starting a doctorate at the TU Dresden or that you have already started!

As an Excellence University, TU Dresden offers early career scientists research and teaching at a top international level as well as numerous cooperations with non-university research institutions in the Dresden area and beyond.

The challenges of the 21st century are interdisciplinary. A broad spectrum of disciplines as well as an interplay of disciplines is therefore essential, because only through excellent and broad-based interdisciplinarity can we develop solutions for the complex problems of our time and contribute innovative answers to global problems.

Linked to this is our commitment to internationality. We want to bring the world onto campus and at the same time cultivate intensive international cooperation, because diversity of perspective promotes and enables innovation. Together, we are developing TU Dresden into a globally oriented university that is always aware of its regional identity.

As a (prospective) doctoral candidate, you will find not only research expertise and outstanding teaching, but also comprehensive interdisciplinary qualification opportunities, advice and support at our university. These support services are bundled under the umbrella of the Graduate Academy - your central point of contact for all questions related to your doctorate.

This brochure is intended to help you gain an initial overview of the great variety and numerous opportunities at TU Dresden.

We hope you enjoy reading this brochure and wish you every success with your individual doctoral project.

**Prof. Dr. Ursula M. Staudinger**Rector

**Prof. Dr. Angela Rösen-Wolff**Prorector for Research



Rector of the TU Dresden, Prof. Dr. Ursula M. Staudinger



Prorector for Research of the TU Dresden, Prof. Dr. Angela Rösen-Wolff

#### ... good to have you here!

You have your master's degree, diploma or state examination safely under your belt, your grades are excellent and you enjoy scientific work? Nevertheless, you are not quite sure whether doing a doctorate is the right choice for you? Or are you already at the beginning of your doctorate and still have a lot of questions to ask?

At the 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, on qualification opportunities, or what career paths are open to you with a doctorate.

In the shape of this little guide to acquiring your mortarboard, we would like to provide you with helpful tips and information so that you can successfully master your doctorate.

And, of course, we are 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 team of the Graduate Academy

PS: Whereever you see this symbol  $\rightarrow$ , you will find further information and contact details at the end of the brochure.





## 1.1 Doctorate project

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 make an independent, in-depth and original contribution to scientific research that contributes to gaining knowledge in the respective subject. This is usually documented in the form of a  $\rightarrow$  **monographic dissertation**, but can also take the form of a  $\rightarrow$  **cumulative dissertation**. This depends on your Faculty and is specified in the corresponding doctoral regulations.

After you have carried out your research project and written and submitted your dissertation and also successfully passed your → **disputation** and, if applicable, your final examination, you will be awarded an overall grade. The grading scale is differentiated into the following five 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 process is usually estimated at three years, which is, by the way, the usual duration for doctoral fellowships. However, depending on the individual research and work environment as well as

personal motivation and self-organization, a doctorate can also extend over a longer period. 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 working on the doctorate?
- Does the doctorate fit into my personal life plan?

**TIP:** 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 early career researchers who are doing or have done a doctorate.

In addition to 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. Of course, you do not have to be a member of the Graduate Academy to receive individual advice.

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

As an Excellence University of, TU Dresden is one of Germany's most research-intensive universities. You can do a doctorate at all of the 17 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 Philosophy
- · Faculty of Linguistics, Literature and Cultural Studies

#### **School of Engineering**

- · 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 Economics

#### **School of Medicine**

Medical Faculty Carl Gustav Carus

In addition to the university, numerous non-university research institutes are located in Dresden, collaborating with TU Dresden as part of DRESDEN-concept. The majority of these research institutes belong to the four major national research organizations – the Fraunhofer Society, the Helmholtz Association, the Leibniz Association, the Max Planck Society.

Among the 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 early career 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 doctoral studies. It is also possible to do a doctorate in a subject other than your own. In both cases, you will usually have to attend additional courses in the doctoral subject. This is decided on a case-by-case basis by the doctoral committee of the Faculty concerned.

The admission requirements are set out in detail in the Doctoral Degree regulations of the individual 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.

**TIP:** 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.

## 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 two professors of TU Dresden or a TUD Young investigator to act as your academic supervisors 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 supervisors, you can submit an application to be accepted as a

doctoral candidate to the respective Doctoral Office via the online system  $\rightarrow$  **Promovendus.** This will then be examined by the  $\rightarrow$  **Doctoral Committee** and, once it is approved, you will be included in the register of doctoral candidates of the Faculty concerned.

All procedures concerning your doctoral project are handled at the TU Dresden via Promovendus, which you have access to at any time within and outside the TU Dresden network.

Apply through Promovendus for:

- acceptance as a doctoral candidate at a Faculty of the TU Dresden
- the opening of the doctoral procedure at your Faculty
- membership as a doctoral candidate at the Graduate Academy

**Enrollment** 

While acceptance as a doctoral candidate by the Faculty is a compulsory prerequisite for carrying out your

doctorate, enrollment as a doctoral student is voluntary and takes place via the online application portal of the Admissions Office. And enrollment pays off in many ways! 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.

**TIP:** We recommend that you register as a doctoral candidate at your Faculty right at the beginning of your doctorate. By doing so, you follow the binding Statutes for Ensuring Good Scientific Practice, Avoiding Scientific Misconduct, and Handling Violations.



## 1.5 Types of doctorate

While the formal requirements and admission procedures apply equally to all doctoral candidates, the way in which and under what conditions a doctorate is conducted sometimes differs considerably.

Of course, external factors often play an essential role in this decision, first and foremost 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 and "traditional" path to a doctoral degree. As the name suggests, this form of doctorate allows you one thing above all: a high degree of independence, freedom and organizational leeway.

If you would like to do your doctorate in this way, then you need to find your supervisor on your own and determine the research topic together with him or her. 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 external 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

#### The 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 as well as more intensive supervision, often even by a whole team of supervisors and

• in many cases also with a wide-ranging professional and interdisciplinary qualification program.

This "all-round package" comes with a "price": The number of places in structured doctoral programs at German universities is still very limited. Accordingly, these programs are usually characterized by fixed application deadlines and competitive selection procedures. In addition, the thematically specified 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.

An overview of the structured doctoral programs offered by the TU Dresden can be found on the TU Dresden website in the section Research | Junior Researchers

## Special form of doctorate: Binational doctorate or cotutelle de thèse

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

In principle, the binational doctorate is possible at all Faculties of TU Dresden and there are also no restrictions in terms of cooperating countries.

Are you interested in a binational doctorate?

Then you should consider the following points:

- You need to find a supervisor at TU Dresden and a supervisor at a foreign university. 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.

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.

**TIP:** A regular doctorate at TU Dresden with external second supervision or review by a professor from a foreign university is an alternative to the Cotutelle de thèse. With this form of doctorate, you can collaborate just as intensively with a foreign partner within the framework of your research, but avoid the rather high bureaucratic effort that a binational doctorate entails.



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

Choosing your supervisors 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 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?





#### The search for the right supervisors

Each doctoral candidate at TU Dresden should be supported by a supervisory team consisting of two university teachers (professors or TUD Young Investigators).

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.
- Has he or she perhaps been an awardee of the Graduate Academy's Award for Excellence in Doctoral Supervision?

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 topic you are aiming for. Make it 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.

# Information for international doctoral candidates

For prospective doctoral candidates from abroad, too, the first step on the path towards a doctorate at TU Dresden is to contact a potential doctoral supervisor. This is a prerequisite for being registered at a Faculty as a doctoral candidate and for officially becoming a doctoral candidate at TU Dresden.

## 1.7 The Graduate Academy of the 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?

# Next step on your way to a doctorate: Become a member of the Graduate Academy (GA) at TU Dresden! Membership is free and worthwhile!

The Graduate Academy offers you

- an interdisciplinary qualification program specially designed for early career researchers, with numerous workshops and seminars,
- individual counseling and coaching before, during and after doctorate,
- funding programs for doctoral candidates and postdocs, such as short-term scholarships or travel grants to conferences or stays abroad,
- the GA Writing Lab with a wide range of activities related to scientific writing and
- events where you can network and exchange ideas with other doctoral candidates.

Membership in the Graduate Academy is voluntary and must be formally applied for. To apply, please log in to → **Promovendus** and complete the online Graduate Academy membership application found on the home page after login.

During the application process you will be asked to upload the following documents required for membership within Promovendus:

- Supervision Agreement (including the working plan)
- Attachment to the supervision agreement (industrysponsored doctorate)

At the end of the online application in Promovendus an application document will be created, which you have to sign or digitally sign and then please send electronically (e.g. as a scan) to graduiertenakademie@tu-dresden.de.

You have fulfilled all requirements and your documents are complete? Then you will receive your confirmation of admission by e-mail and can take advantage of all the benefits of membership in the Graduate Academy.

Another piece of good news: Even after you have successfully completed your doctorate, you can remain a member of the Graduate Academy as a postdoc at TU Dresden!

As you can see, becoming a ga member is definitely worth it. Do you have questions about membership? We have the answers - in person and on our website: https://tu-dresden.de/ga

**TIP:** 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.





## 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 years)?
- 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.

## 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 fixedterm contracts and are often part-time. However, as a → research assistant you can only be employed parttime 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  $\rightarrow$  **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.

**TIP:** Are you looking for a suitable position for your doctorate at TU Dresden? Then why not visit the webpages of the Graduiertenakademie or the general Job Portal of TU Dresden to find out about current job advertisements? Job vacancies at the non-university research institutions in Dresden can be found on the webpages of the individual institutions.



## 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.

Get an overview of the individual funding sources and check which foundation suits you and your doctoral project. You should also keep an eye on the application deadlines. Some scholarships are awarded once or twice a year, while others allow you to submit your application at any time.

The application documents usually consist of:

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

**TIP:** An overview of doctoral scholarships can be found on the Graduate Academy | Funding website and on the Federal Ministry of Education and Research website at www.stipendiumplus.de.

# 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.

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.

**TIP:** 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.

The usual funding period for doctoral scholarships is two years, with the option of extension for a further year. The monthly scholarship amount varies, depending on the funding body.

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 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. For more information on this topic, see 2.5.

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!

# 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.



An industry-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 two university professors 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-sponsored doctoral degrees are most frequently found in the automotive, electrical engineering or telecommunication sectors. 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.

Note: If you are doing your doctorate in cooperation with a company, please fill out the attachment to the supervision agreement (industrial doctorate) in addition to the sample supervision agreement. This agreement supplements the supervision agreement and contributes to mutual security of action. You can find it on our website under Graduate Academy | Membership.

## 2.5 Questions and answers about insurance

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 employment (e.g. at TU Dresden or non-university research institutions)

As part of your 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 (14,6% 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.

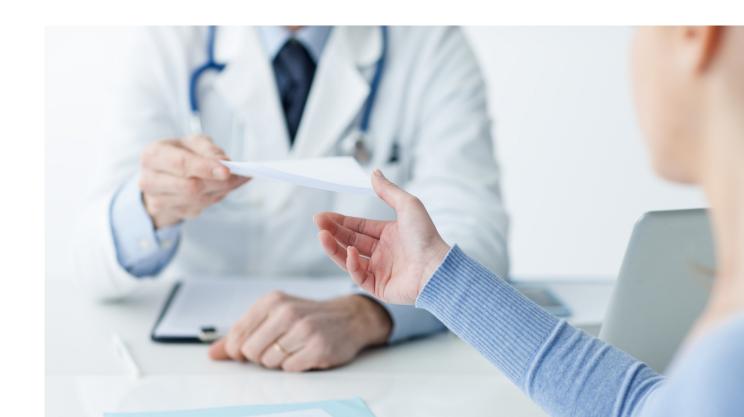
If you take out insurance as a doctoral candidate who is not in employment, this means that you must pay

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.

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).

**TIP:** 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.

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 scientific work as a PhD student you are insured against accidents in different ways, depending on your status.

If you have an <u>employment relationship with the TU</u> <u>Dresden</u>, you are generally fully covered by accident insurance through the Unfallkasse Sachsen. This includes all activities that are directly related to the employment or the qualification project. This also applies to commuting to and from work as well as business trips and research stays outside the university.

Enrolled doctoral candidiates are protected by the statutory accident insurance during their education and training at universities (§ 2 para. 1 no. 8 c SGB VII). If you are enrolled at the TU Dresden but do not have an employment relationship with the TU Dresden, then you are only covered by accident insurance on the premises of the TU Dresden and on official journeys to and from the TU Dresden as well as to and from study-related events and scientific activities that lie within the organizational area of responsibility of the TU Dresden.

Doctoral candidates without enrollment and without employment at TU Dresden, e.g. scholarship holders who are not enrolled or doctoral students employed by a non-university employer, are only covered by the statutory accident insurance as long as they are on the premises of TU Dresden. This means in case of an accident on the way to or from the institution - also in the context of research trips during the doctorate - there is no accident insurance coverage.

Please note that each accident will be examined by the accident insurance institution (Unfallkasse Sachsen) on a case-by-case basis.

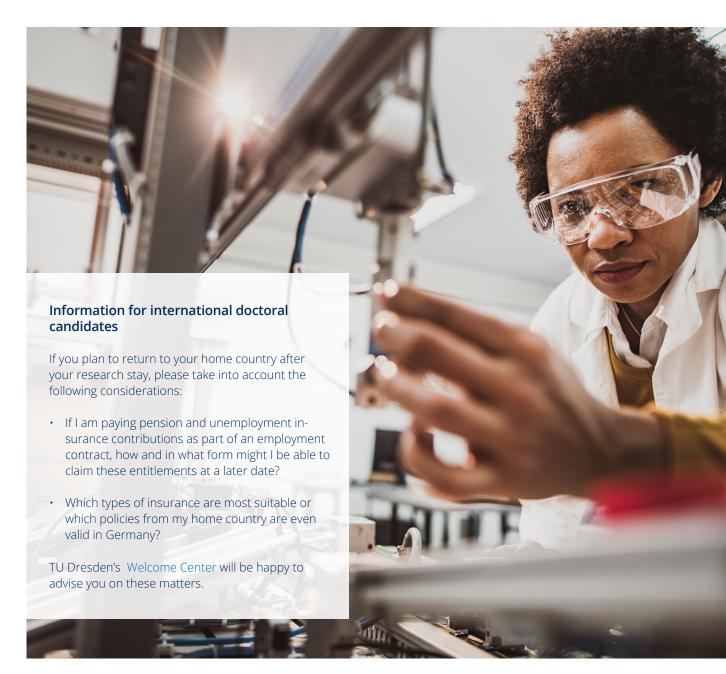
Also with regard to **liability insurance**, the respective status you have as a doctoral candidate is decisive. For doctoral candidates with employee status, the university will pay for damages caused to others or to the property of others during working hours. Of course, this only applies if you cannot be proven to have been grossly negligent.

For <u>doctoral candidates</u> who are not employees of the <u>TU Dresden</u>, there is no company liability insurance by the TU Dresden, even if the TU Dresden itself acts as the scholarship provider. Therefore, the conclusion of a personal private liability insurance is recommended for scholarship holders. With regard to the insurance coverage granted, you should make sure that the risk of damage to objects of the TU Dresden is explicitly covered by the insurance.

Costs incurred in connection with your doctorate may be tax deductible under certain conditions. Get advice from tax experts for individual detailed questions.

**TIP:** If you have not concluded an employment contract with TU Dresden and would like to use the laboratory and work rooms on site within the scope of your doctorate, we recommend concluding an appropriate user agreement. The GA provides a sample for this purpose.







Important aspects
during the
doctoral process

## 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.

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. And 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 also been 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.

**TIP:** You can find support in the form of writing consultations, special workshop offer, writing groups, and a quiet place to write at the **Graduate Academy Writing Lab**. Here you can also exchange ideas and network with other doctoral candidates.

#### Good Scientific Practice at the TU Dresden

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.

As a researcher, you have the great privilege and freedom to research and teach in a self-determined manner in terms of content and methodology. Academic freedom is a fundamental right and is enshrined in Germany in the first sentence of Article 5 (3) of the Basic Law: "Art and science, research and teaching are free. The freedom of teaching does not release from loyalty to the constitution."

But with its right and claim to freedom and autonomy, science also has a special responsibility and duty of care. Accordingly, it is important to deal intensively with the standards of good scientific practice (GSP) and to work according to their principles.

But what does that mean anyway? The principles of good scientific practice require that all scientists work "lege artis" (i.e., according to the rules of the art). This includes, among other things:

- the correct handling of data,
- · to critically question all results,
- to maintain strict honesty with regard to their own and third parties' contributions,
- to avoid and prevent scientific misconduct.

Violations of the rules of good scientific practice also do not always have to be intentional. Scientific misconduct does not only exist if you deliberately or grossly



negligently invent or falsify data or sources or infringe intellectual property (e.g. through plagiarism or theft of ideas). Also, if you falsely accuse third parties of scientific misconduct, know about falsification and do nothing about it, or interfere with the research activities of others (for example, by hiding books in the library) you act against the principles of good scientific practice.

Therefore, all members and affiliates of TU Dresden are obliged to follow the "Statutes for Ensuring Good Scientific Practice, for Avoiding Scientific Misconduct and for Dealing with Violations", to make them the basis of their scientific work and to actively contribute to the avoidance of scientific misconduct. The Statutes also regulate, among other things, that all scientific staff of TU Dresden as well as all doctoral candidates are obliged to complete at least one training course on the topic of "Good Scientific Practice".

At TU Dresden there are numerous services and contact points that you can turn to - even in situations of conflict and crisis:

- The **Graduate Academy** offers you numerous further training courses, but also advice on this topic.
- The **Ombudsperson** is the contact person, advisor and mediator in all cases of suspected scientific misconduct.
- The Office for Good Scientific Practice supports the Ombudsperson, the Investigative Committee, ¬and the regular review boards in cases of suspected scientific misconduct.
- Each Faculty appoints researchers as **liasons officers**, who are contact persons for early career researchers at Faculty level.
- Advice and support on all aspects of research data management is provided by the Service Center Research Data at TU Dresden.
- The **Saxon University and State Library (SLUB)** also supports you with individual consulting services, workshops and online resources.

All contact details as well as further information, tips and links on the subject of GSP can be found on our website.



## 3.2 The supervision relationship

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

The responsibilities of the doctoral supervisors include regular individual supervision meetings, which should take place at least once a semester. If you are a research associate at the professorship of one your supervisors, 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.

In the "Statutes for Ensuring Good Scientific Practice", the role of the doctoral supervisor is defined as follows:

"Good supervision involves a balance between support and encouragement of scientific independence. The supervisory tasks also include appropriate career support as well as support for the independent scientific profiling of the early-career scientist, for example, by enabling him or her to participate in scientific events and to take advantage of offers from the Graduate Academy as well as in publication activities."

Doctoral supervision is to be organized as follows:

 Each doctoral candidate should be supported by a supervisory team consisting of two university lecturers. Further experts can be involved in the supervision.

- At the beginning of a doctoral project, a supervision agreement is concluded between the supervisors and the doctoral candidate, in which the form and scope of the supervision is specified.
- At the beginning of the project, the application for acceptance of the doctoral candidate must be submitted to the Faculty.
- The supervisors encourage the completion of the doctoral project within a reasonable period of time.

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 cross-disciplinary events and those specific to my doctoral project?
- How can my supervisors 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?

TIP: 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.

Ideally, your supervisors 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.

Against the backdrop of this range of supervision styles, it is all the more important that you discuss with your supervisors 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.

The conclusion of a written supervision agreement is made obligatory for all doctoral candidates at TU Dresden in the "Statutes for Ensuring Good Scientific Practice, for Avoiding Scientific Misconduct and for 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 scientific 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.

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 supervisors 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.

## 3.3 Cross-disciplinary training and soft skills

Researching, writing, presenting, acquiring external funding, networking and working in an interdisciplinary way: The demands on scientists are diverse and challenging.

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.

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.

The Graduate Academy offers a comprehensive range of qualification courses tailored specifically to the needs of doctoral candidates on the topics:

- Leadership and Management Skills
- Career Development
- · Research Management
- Skills for Scientific Research
- Science Communication

Further develop your interdisciplinary skills. This will prepare you optimally for your next career step - in science or business.

Membership in the Graduate Academy is a prerequisite for participation in the free qualification program. In addition, the the Center for Continuing Education and the Centre for Interdisciplinary Learning and Teaching (ZiLL) offer numerous courses, especially on university didactics.



## 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 here, for example:

- · within the framework of structured programs,
- as a scholarship holder of scholarships provided by the "Begabtenförderungswerke" (organiz-
- · ations for the promotion of young talent),
- · at the German Academic Exchange Service (DAAD),
- for members of the Graduate Academy, within the framework of the funding program, travel grants for short research stays.

#### Checklist

#### **Content preparation**

- ☑ Who is doing research in your field? And what is the best way to get in touch? (through your supervisor, by email, at a conference, etc.)
- ☑ Are there already contacts of your institute with foreign universities/working groups?
- ☑ Can recommendations be made by supervisors or ☑ Which period is suitable for the research stay? postdocs? Has the potential work and time schedule beer
- ☑ What added value does the research stay have for you in professional and personal terms?

- What is the working language at the host institute?
- ☑ Are you provided with your own workspace at the host institute? Do you get access to required laboratories, libraries, archives, etc.?
- Which period is suitable for the research stay? Has the potential work and time schedule been coordinated with the host institution or the host scientist?

#### **Organizational preparation**

- ☑ What are the mobility costs for the outward and return journey? Are you planning any other trips and tours?
- ☑ Which entry and residence requirements (VISA) do you have to observe? Do you need a passport? (Observe deadlines and validity)
- ☑ What is the cost of living and how expensive is the accommodation?
- ☑ What accommodation options are available? In what form can the rent be paid (cash payments, bank transfers, etc.)?
- ☑ Which deadlines should be observed? (e.g. application deadlines for scholarships)
- ☑ If you are enrolled as a doctoral student at the 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?

- Which insurances do you need (possibly anadditional international health insurance, 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)?

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 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
- corresponding funding programms of the Graduate Academy for members
- costs are covered by the DAAD

If you have any questions about funding options for your research stay abroad, the Graduate Academy team will be happy to advise you and wishes you a good trip in advance!

## 3.5 Compatibility of 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 Bundeselternzeit- 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 65 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  $\rightarrow$  **Wissenschaftszeitvertragsgesetz** (WissZeitVG - 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 in particular on maternity protection, parental leave and allowance, options for extending contracts, part-time employment and childcare options.

#### Parents Portal of the City of Dresden

City of Dresden Amt für Kindertagesbetreuung Zentrale Beratungs- und Vermittlungsstelle +49 351-4885051 kindertagesbetreuung@dresden.de

### **TU Dresden | Family Friendliness**

Unit 9.3 Diversity Management Günther-Landgraf-Bau room 7-207 Mommsenstr. 15 01069 Dresden +49 351 463-39772 franziska.schneider@tu-dresden.de

### CampusBüro Uni mit Kind

Verwaltungsgebäude 1 George-Bähr-Str. 1d 01069 Dresden +49 351 463-32666 / -32340 campusbuero@studentenwerk-dresden.de

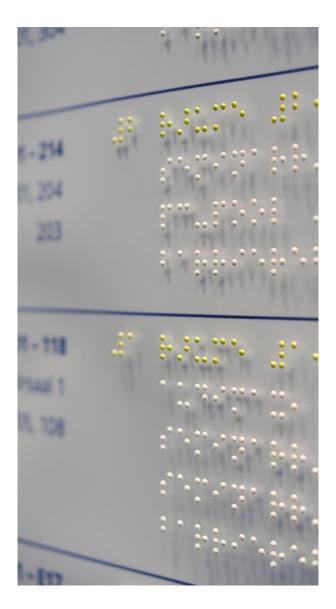
# 3.6 Doing a doctorate if you have a disability

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 Diversity Management Unit coordinates all activities in the area of inclusion. You will find an overview of existing advisory and support services on the relevant websites..

The Interessengemeinschaft Studium und Behinderung (IGB - Representative for students with Disabilities and Chronic Illnesses) acts as a contact point for students with disabilities and chronic illnesses and offers individual personal counseling. The Student Council also offers individual counseling for students with disabilities or chronic illnesses.

**TIP:** The Graduate Academy also offers support for students interested in pursuing a doctorate and doctoral students with disabilities and chronic illnesses. This includes, for example, coaching offers or special support if you would like to participate in workshops of the Graduate Academy.



# 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-on-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.

Are you struggling with psychological problems in the course of your doctorate? If so, the TU Dresden's University Health Management offers you an overview of support services, such as the Psychological Consultation of the Occupational Health Service for Employees or the Psycho-Social Counselling Office of the Studentenwerk Dresden.

In difficult phases of the doctorate, it is particularly important to remain in exchange with your supervisor. However, if this relationship itself is part of the problem and there are conflicts that you cannot resolve together with your doctoral supervisor, the Graduate Academy will also help you here. In the case of workplace-specific conflict situations, we will support you in various ways, depending on your needs. Confidentiality has the highest priority.

### Offers of the Graduate Academy

#### **Conflict Counseling**

Conflict counseling is an individual consultation to clarify the conflict situation and to explore possible courses of action and solutions. The circumstances of the conflict and the course of the conflict are investigated, possible solutions are developed, and further steps and any stakeholders to be involved are identified.

#### **Conflict Coaching**

Conflict coaching is a longer-term individual support in conflict situations over several consulting appointments, among other things to clarify one's own objectives and resources, to develop individual solution strategies as well as to prepare and follow up on conversations with other parties involved in the conflict.

#### Mediation

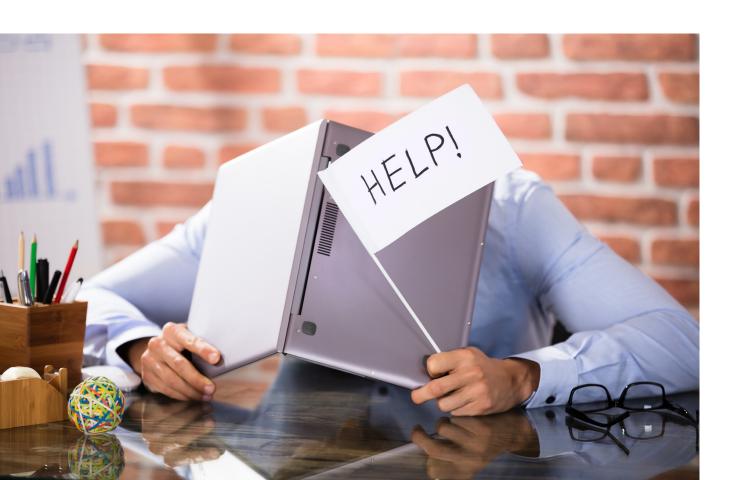
Mediation is a form of conflict resolution in which all parties involved in the conflict, e.g. supervisor and doctoral candidate, are included. The prerequisite is the voluntary and open willingness of all parties to actively and self-determinedly work on the existing conflict. The mediator supports the process of finding a joint solution from an impartial and solution-oriented position. The result of mediation is a jointly reached written agreement on concrete measures to resolve the conflict.

At TU Dresden there are further contact points to which you can turn confidentially in case of conflict: The  $\rightarrow$  liaison officers for early-career researchers of the Faculties are the first contact persons for doctoral candidates on Faculty level, especially in problematic situations as well as in questions concerning good scientific practice. If necessary and only after the consent of the person seeking advice, they can pass on the case of conflict to the ombudsperson of TU Dresden.

If there is a suspicion of violations of the Statutes for Ensuring Good Scientific Practice, the  $\rightarrow$  **ombudsperson of the TU Dresden** can be consulted. Contact the Graduate Academy before considering this step. We will advise you confidentially!

In the event of problems related to employment law involving superiors, the  $\rightarrow$  **Personalrat (Staff Council) of the 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  $\rightarrow$  Gender Equality Representatives of TU Dresden and the Equal opportunities Officers in the Faculties and Central Academic Units are the people you should contact.



## 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. Thus, the Doctoral Council of TU Dresden, also called DDocs, represents the concerns of doctoal candidates and advocates for a continuous improvement of the general conditions for doctoral candidates at the 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 is a member of the Executive Board of the Graduate Academy for the duration of their term of office and regularly participates in the Executive Board meetings. The Senate of the TU Dresden has granted the spokesperson of the Doctoral council the right to speak as a guest at its meetings. Thus, the elected representatives of the doctoral candidates of TU Dresden can directly introduce

their interests and concerns into important discussion and decision-making processes.

All early career researchers have the opportunity to exchange ideas, address problems and give tips in a convivial atmosphere at DDoc events. In addition, the DDocs are networked with other doctoral representatives both in Dresden and at other universities. The active participation in the Association of  $\rightarrow$  **Central German Doctoral Students' Representatives** (VMPV) offers the possibility to better understand the situation and problems of doctoral candidates beyond the TU Dresden.

Do you have questions about the Doctoral Council or would you like to get involved? You can find all information and contacts on the website of the Doctoral Council



# 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.

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 supervisors 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 ( $\rightarrow$  **Rigorosum**) and the public defense of the dissertation ( $\rightarrow$  **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.

# 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. We also recommend that you take a look at the publication guidelines of the TU Dresden.

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 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.





# 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!

**TIP:** You have successfully defended your dissertation and are now working as a postdoc at TUD or HZDR? Then you can also apply for membership in the Graduate Academy as a postdoc. For postdocs, we offer a wide range of support within the framework of the joint **Postdoc Center**.

Or have you not yet started thinking about which path to take? Academia or business? Major corporation or small or medium-sized enterprise? Public sector or your own company?

Especially in the labor-intensive final phase of the doctorate, there is often little time to deal intensively with this question. Nevertheless, it makes sense to consider

your career options early on, ideally even before you decide to pursue a doctorate. With a clear goal in mind, you can make decisions during the doctoral process that will benefit you afterwards:

- Base your choice of topic and supervisor more on application relevance and proximity to industry or on academic relevance and visibility!
- During your doctoral phase, you should also acquire additional qualifications that are useful for entering the (non-university) job market (e.g., business knowledge, leadership skills, project management) or with a view to an academic career (teaching and publication experience, acquisition of third-party funding)!

Regardless of how intensively you have already dealt with these questions in the course of your doctorate, at the end of your doctorate you will be faced with a fundamental decision: Do you want to continue working

in science? Or do you want to enter the non-academic job market?

#### Academia

For a career in research, the doctorate is of course essential. For long stretches, a career in research means maximum competition and mobility. Cautious estimates assume that only about 10 - 15 percent of the best early career researchers successfully master the path to a professorship. This makes it all the more important to deal with the requirements at an early stage.

In recent years, the qualification paths for professorships have become more differentiated. In addition to the habilitation or achievements similar to the habilitation, there is also the possibility of qualifying for appointment to a professorship within the framework of a junior professorship or junior research group leadership.

Even though this path may not be an easy one, with a lot of passion for your subject, strategic planning, support and of course the always necessary bit of luck, this path can be mastered. And it is worth it!

#### **Business**

But a doctorate can also be an advantage for starting a career outside of academia. This applies, for example, to representative functions in business, to the field of research and development, and to public administration. But what do employers expect from career starters with a doctorate and how can they successfully enter the non-university labor market?

According to the "Bundesbericht wissenschaftlicher Nachwuchs 2021" (p. 216) 69% of all PhD holders under the age of 45 in Germany work in the economic sector.

Of course, there is no such thing as "the business world" - the areas of activity and job profiles are broadly diversified: from manager in a medium-sized company, a management position in the public sector, to research manager in industry, to generalist in a start-up.

The entry can be easier or a bit more difficult - depending on the field. It is important not to put off the decision for too long - a move from academia to business requires intensive research and preparation.

**TIP:** 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.



All that now remains for us to say is: Whatever path you choose or have already chosen; the TU Dresden and of course especially the team of the Graduate Academy will support you in the best possible way!





Appendix

# Service facilities and contact points 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

https://tu-dresden.de/studium/im-studium/ beratung-und-service/immatrikulationsamt

# 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..

→ https://tu-dresden.de/tu-dresden/profil/ freunde-foerderer/gff

## 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.

→ https://kinder.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.

# Centre for Interdisciplinary Learning and Teaching (ZiLL)

ZiLL is first point of contact for teaching staff at TU Dresden. It supports the development and implementation of practice- and research-oriented formats. Another focus of ZiLL is didactical advice and backing of courses in the context of academic development.

→ https://tu-dresden.de/tu-dresden/organisation/ rektorat/prorektor-bildung/zill

# Center for Information Services and High Performance Computing (ZIH)

As an academic unitof the TU Dresden, the ZIH is responsible for the communication infrastructure of the university and operates the central IT infrastructure services and servers. In addition, it -offers extensive continuing education programs in the form of courses, user training and information events.

→ https://tu-dresden.de/zih

# Center for Open Digital Innovation and Participation (CODIP)

As a research center, CODIP addresses questions about how digital media and tools can be used for teaching, learning, and research, and how their use is changing the world of work and everyday life. More than 70 employees conduct interdisciplinary research on digital media and tools and develop suitable concepts, educational offerings and digital applications.

→ https://tu-dresden.de/mz

## **Dresden University Sports Center**

Thinking needs movement! Under this motto, the DHSZ accompanies over 30,000 students, employees and families within the TU Dresden, the HTW Dresden and other Dresden universities every year with an attractive range of sports and events.

→ https://tu-dresden.de/dhsz

# Equal Opportunities and Women's Representative of the TU Dresden

The Equal Opportunities Officer of the TU Dresden coordinates the equal opportunities work of the Faculties and central institutions and advises on all issues related to gender equality.

https://tu-dresden.de/tu-dresden/organisation/gremien-und-beauftragte/ gleichstellungs-und-frauenbeauftragte

## **Equal opportunity officers of the Faculties**

The respective equal opportunity officers of the Faculties also provide advice on the topics of gender equality, compatibility of family and career, and conflicts at the place of work or study.

 ↑ https://tu-dresden.de/tu-dresden/organisation/gremien-und-beauftragte/gleichstellungs-und-frauenbeauftragte/contacts/ gb-fakultaeten

# International Office (Akademisches Auslandsamt)

The International Office of the TU Dresden is the central contact point for all questions concerning international mobility of students and resaerchers.

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.

→ https://tu-dresden.de/studium/im-studium/
beratung-und-service/akademisches-auslandsamt

# 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.

→ https://tu-dresden.de/tu-dresden/qualitaetsmanagement/ressourcen/dateien/Mai\_21-Vertrauenspersonen-der-Fakultaeten.pdf

## **Ombudsperson of TU Dresden**

The ombudsperson of TU Dresden is the contact person, advisor and mediator in all suspected cases of scientific misconduct.

↑ https://tu-dresden.de/tu-dresden/qualitaetsmanagement/
gute-wissenschaftliche-praxis-an-der-tu-dresden

### **Postdoc Center**

Within the framework of the joint Postdoc Center of the TU Dresden and the Helmholtz-Zentrum Dresden-Rossendorf, tailor-made offers for young scientists after their doctorate are provided under the umbrella of the Graduate Academy. The aim is to support them optimally in their decision-making process as well as in the planning and implementation of further career steps. To this end, qualification, consulting, coaching and financing is offered in the career tracks Academia, Business and Science Management.

→ https://tu-dresden.de/ga/postdoccenter

# Saxon State Library - State and University Library (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.

→ https://www.slub-dresden.de

### Service Center Research Data

The Service Center Research Data supports every scientist at TU Dresden in overcoming his or her own individual challenges in dealing with research data.

https://tu-dresden.de/forschung-transfer/services-fuer-forschende/ kontaktstelle-forschungsdaten

### **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.

 ↑ https://tu-dresden.de/tu-dresden/organisation/ gremien-und-beauftragte/personalrat

### Startup initiative dresden|exists

The start-up initiative dresden|exists advises and qualifies students and scientists on the economic application of research results and the implementation of their own business ideas with the aim of supporting them on their way to self-employment activities.

#### Studentenwerk Dresden

The Studentenwerk Dresden operates numerous dining halls at various locations on campus. Enrolled students of the TU Dresden can eat here at the favorable student rates.

→ https://www.studentenwerk-dresden.de

### The Psycho-social counseling

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.

→ https://www.studentenwerk-dresden.de/soziales/
psychosoziale-beratung.html

### **TUDIAS - Language school**

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

→ https://www.tudias.de/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

→ https://dresden-concept.de/welcome

### 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 ddcwelcome.wordpress.com 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.

→ https://tu-dresden.de/forschung-transfer/ services-fuer-forschende/welcomecenter



# **Glossary**

The **Association of Central German Doctoral Representatives (VMPV)** is an association of the doctoral representatives of the universities of Dresden, Halle, Jena, Leipzig and Freiberg. The members of the VMPV meet twice a year to discuss topics relevant to doctoral studies and university policy, to exchange ideas and to coordinate joint activities.

**Budget positions** are positions for academic staff that are firmly provided for in the university's financial plan and are assigned to a professorship, an institute or a facility. They are publicly advertised as part-time or full-time positions and usually have a contract term of three years, with the possibility of extension for a further three years. Remuneration is based on the collective agreement for the public service of the Länder (TV-L) and is usually classified in pay group E13. The focus of these positions is usually on teaching, student support and research activities in projects of the chair holder.

**Third-party funded positions** are offered within the framework of research projects that have been obtained from third-party funding sources such as the DFG or the Federal Ministry of Education and Research. The remuneration of the positions is also based on the TV-L, the scope of the position is between 50 and 100 percent of the regular weekly working hours, and the duration of the contract depends on the duration of the project applied for. In contrast to budget positions, the focus here is on research rather than teaching activities. Third-party funded positions generally offer good framework conditions for one's own further scientific qualification and networking, since publishing the project results is part of the range of tasks and travel funds are often available within the framework of the project.



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.

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.

Your doctoral project is supported and monitored with regard to formal processes and requi- rements 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.

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.

The Federal Parental Allowance and Parental Leave Act (Bundeselterngeld- und Elternzeitgesetz, BEEG) contains, among other things, provisions on the compatibility of family and career, in particular on parental leave and parental allowance.

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 pro- grams. You can search for scholarship programs and the respective application criteria according to specific target groups and countries using the DAAD scholarship database.

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

The Law on Fixed-term Contracts in Higher Education and Research (Wissenschaftszeitvertragsgesetz – WissZeitVG) regulates the conclusion of fixed-term employment contracts for academic or artistic staff at universities or non-univer- sity 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 mono- graphy, that means as one book authored by a single doctoral researcher on a specific rese- arch 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 scien- tific 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** 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 compri- ses advisory services, the documents and publications database Qucosa, open access publication funding and a legal assessment service.

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 work- shops, 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.

**Promovendus** is a web-based software used for the administration of doctoral procedures. Doctoral candidates submit their application for acceptance as a doctoral candidate and for the opening of the doctoral procedure via Promovendus. A ZIH user account is required for the login. For technical questions regarding Promovendus, please contact promovendus@tu-dresden.de.

**Research Assistants (Wissenschaftliche Hilfskraft – WHK)** 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 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.

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.

The **viva voce** is a fixed component of the final examination in the doctoral procedure at some Faculties of the TU Dresden. It is an oral examination on selected topics in predefined subject areas, usually lasting 45 minutes. In contrast to the disputation, the viva is not open to the 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	111.0.
Faculty of Psychology	
School of Humanities and Social Sciences	
Faculty of Education	Dr. phil.
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. 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. 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.

## **Imprint**

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