# A PhD... is it for me?





Recognized for « HR excellence in Research » by the European Commission since 2011, the University of Liège is an institutional leader in the implementation and integration of the European Charter & Code for Researchers and actively contributes to the advancement of research excellence within Europe.

In addition to fostering a welcoming environment, ULiège seeks to concretely improve the working conditions for researchers focusing on open and transparent recruitment, equity, diversity and inclusion and personal and professional development.

Designed to equip researchers, regardless of whether they are starting their career or are more advanced, with the necessary skills to succeed in their careers, these guides explore key themes such as ethics and scientific integrity, research funding and grants, first steps in the research environment, leadership, Open Science, gender and diversity...

To learn more about doctoral programmes at the University of Liège: https://www.recherche.uliege.be/en/doctorate



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## A PhD... is it for me?

A 21st century PhD promotes knowledge development, excellence, creativity, and innovation; it encourages interdisciplinary studies, intersectionality, and collaboration, maximizing its impact on today's world.

Perhaps you want to further explore the research you studied in your Master's thesis; perhaps a professor encouraged you to consider further studies; or perhaps you know your passion can contribute to an important societal need and a PhD will allow you to make this impact. Whatever your motivation, this booklet will answer the ten questions most frequently asked by students who are considering pursuing a PhD.

questions

Pursue a PhD? Maybe it's been your lifelong goal, maybe you're still considering the idea-wherever your next step may lead, consider your options and learn about the resources and opportunities available.

Pursue your passion, pursue the possibility and prepare yourself to pursue a PhD.

#### **Isabelle Halleux**

Head of the Department of Research & Innovation at the University of Liège

# Summary













A PhD just another diploma?	6
A PhD what exactly does it entail?	8
A PhD is it for me?	10
How to choose a research topic?	12
How to choose a supervisor?	14
What resources are available?	16
What does a doctoral degree entail?	18
What is a PhD candidate's academic status?	20
How to obtain funding?	22
What career options are available with a PhD?	24
Key resources	26

# A PhD... just another diploma?

# A doctorate is the highest academic degree conferred by institutions of higher education in Belgium.

6

The studies you undertake in a doctoral degree allow you to become an expert in a specific field. You will acquire skills in research, project management, communication, time management, team building, stress management, leadership development, etc. These qualities will make you a valuable candidate in the labour market, to employers and to recruiters. Once conferred, the title of Doctor is added to your professional title.

#### Is the PhD a unique diploma?

Unique? Yes, because it is the only degree conferred in the 3rd cycle by universities in the French speaking community in Belgium. A PhD can also be dually conferred by a second institution outside of the Federation Wallonia Brussels (known as a joint PhD or a «cotutelle»). If certain international mobility requirements are met, the designation of a «European doctorate» may also be conferred.

#### Is the PhD a recognized diploma?

If you dream of a career in academic research, a PhD is essential. A postdoctoral fellowship will almost always take you abroad, offering important training both inside and outside the classroom. Doctoral candidates succeed through their passion, their grit and hard work and diplomas are awarded to those who demonstrate excellence, rigor, self-discipline, and a strong ability to work both independently and on a team. The diploma may not always be given due recognition of its value in the non-academic world but the qualities and characteristics of a PhD, though expressed differently, remain highly valued and needed. Graduates should always be proud to be called « Doctor ».



In the beginning, I wanted to be an English teacher. But after taking a particular linguistics course, I found a deeper passion and decided to pursue a Master's with indepth orientation. Following my Master's thesis defence, my supervisor suggested that I consider pursing a PhD. I filled in as a supply teacher in a high school which made me realize that it was not the job for me. I had one month to complete my application but finally decided to give myself one year to expand my knowledge and to define my subject. Pursing a PhD is a great adventure that I did not expect! I work on a subject that fascinates me, my activities are varied, I have the chance to travel and I still have the opportunity to teach.

Laura, 2nd year PhD candidate in Modern Languages

## A PhD... what exactly does it entail?

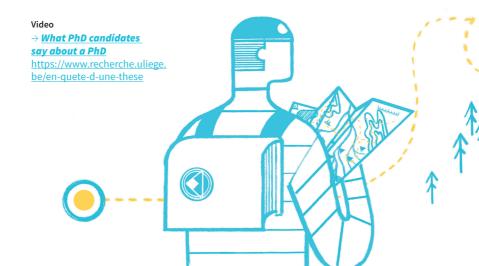
In addition to a diploma, a PhD is hands on research, training and educational formation, preparing the candidate for a career in research.

#### A career in research

Throughout the degree, doctoral candidates acquire the knowledge and the essential skills needed to exercise their profession. They observe, analyse, interpret and discuss with other experienced researchers who valorise their results. They invest in society by transmitting knowledge to students and the general public. A PhD allows candidates a chance to explore all facets of a career in research.

#### A first experience

Research is cultivated over several years as the project is developed, results are obtained, and publications are accepted. It generally takes 4 years of full time studies to complete a doctorate; but if you have other activities such as a teaching assistantship, it could take up to 6 years. Commitment and a personal time investment are equally important.



8



## A PhD... is it for me?

#### A doctorate isn't just for the elite!

Academic excellence is not only defined by high marks but also by the creativity, curiosity, proactivity and tenacity that a student demonstrates inside and outside the classroom. One must be passionate about their field of research and ask the right questions; one must be driven to discover, to be enthusiastic and to want to expand their horizons.

Have you completed a university degree of at least 300 credits or do you hold a Master's degree, having completed 5 years of studies? Did you distinguish yourself during your second cycle of studies with an average grade of 14/20 or higher? If so, you are eligible to apply for a doctoral programme!



#### What are the next steps?

1

Define your research question and prepare

your project.

2

Find, select and be accepted by an institutional supervisor who acts as your primary advisor. 3

Validate your project with the Doctoral College and register for the PhD programme.

#### How to prepare yourself and get ahead during your Master's?

- → Participate in the « Test Drive your PhD » information seminar and explore the world of doctoral programmes. You will hear from a panel of supervisors and PhD candidates and learn about current doctoral projects. Half-day sessions are hosted in December. More information can be requested at doc-training@uliege.be.
- → Participate in a Preparatory PhD Project certificate - a three month session hosted in the fall (French session) and the spring (English session). You'll develop the foundations for a good career in research, you'll explore which tools exist and when to use them, you'll learn how to ask a pertinent research question and how to write a project so that you can prepare a strong presentation for your jury defence. At each step along the way, you'll be supported by a team of experienced administrators, faculty members and research units.

→ If you are already a doctoral candidate, you can participate in the « Let's start a PhD » seminar. This programme explores each stage of the doctoral programme and offers an indepth look at the structure, resources. mobility opportunities and key people that will help you successfully complete your PhD. You will build up your confidence as you develop a high quality research project. This three day seminar offered in October (French and English session) and in January (French session) will also allow you to meet other PhD candidates and build up your professional and academic networks.

Additional information: <a href="https://www.recherche.uliege.be/start-a-phd-seminar">https://www.recherche.uliege.be/start-a-phd-seminar</a>

→ [Je pars en thèse]
youtube.com
watch?v=OcBZNBOidWg&t=11

Additional information: www.

recherche.uliege.be/ppp

The more research is done, the better researchers we become; but the more interesting the question, the more curiously passionate we will become about developing the research.

A doctoral candidate can suggest a research topic that is of personal interest or one that they have explored in their master's studies. However research topics are often proposed by a supervisor who will integrate the doctoral candidate into their research unit. In the latter case, they will have to discuss the project with their supervisor and agree on a course of action.

There are no right or wrong topics to explore. Rather emphasis should be placed on the quality of the question and topic - Is the project realistic and ambitious enough for doctoral research? Will it explore new areas of a research field? The PhD supervisor can assist in refining a research topic to ensure a successful project.

12



# How to choose a supervisor?

Doctoral degrees allow candidates and their supervisor the opportunity to collaborate and develop research of which they both are passionate. The quality of the collaboration is a determining factor for success. Clearly defining a plan of action and communication is a good way to start off on the right foot from the very beginning!

Interested in continuing your education and pursuing a PhD? Start by speaking with your Master's thesis supervisor. They know you and you have experience working with them. It's not uncommon for a professor to encourage students to continue their research when they meet someone who is full of potential and enthusiasm for a topic.

Remember to look at job postings on the university website (https://www.uliege.be/cms/c\_9131376/en/scientific-positions) or on the European job portal (https://euraxess.ec.europa.eu/jobs).

Are you hoping to study in a new university and don't know anyone? Ask one of your former professors to introduce you to their contacts in other institutions. Identify researchers in your field of interest by consulting publications or perusing institutional directories such as ORBi (https://orbi.uliege.be) and contact them. Share your professional aspirations and academic history with them and inquire about their interest to serve as a doctoral supervisor.



You have successfully found an advisor to supervise you in your doctoral candidacy. What's next? It's important to identify mutual expectations and a modus operandi as you embark on this new academic partenership.

- → What expectations do you have as your begin a PhD? Do you and your supervisor have the same goals and how will you communicate your expectations?
- → What kind of team dynamic allows you to excel? A new, small team with a young supervisor or a larger team driven by a leading researcher who is supervising several PhD candidates?
- What kind of supervision allows you to thrive? Do you prefer a hands-off supervisor that you can approach when needed or do you prefer a more hands-on supervision style?
- → Are you properly equipped and prepared to discuss your project, timeline and explain your research results?

## What resources are available?

In addition to a supervisor, doctoral candidates have many resource people that they can count on: a thesis committee, PhD candidates and research networks and administrative and academic support within the institution.

#### Research support system

- → A supervisor can be accompanied by a co-supervisor when the need is justified for administrative or scientific research reasons, for an interdisciplinary field of study or a joint PhD/cotutelle doctorate.
- → A thesis committee of at least three members will accompany the candidate throughout their PhD. They will meet regularly to review the student's progress, take stock of the research, offer insights and questions and discuss next steps.
- → Colleagues from the research unit or university or other PhD candidates and senior researchers can also intervene as needed, as subject matter experts, for advice, for collaboration, etc.

#### **Administrative support**

→ Doctoral Colleges are an excellent resource for PhD candidates, their supervisors and the thesis committee, as they are well versed in institutional policy and faculty regulations.

## <u>List of Doctoral Colleges:</u> www.recherche.uliege.be/codoc

#### <u>Doctoral regulations by faculty:</u> https://www.recherche.uliege.be/regulation

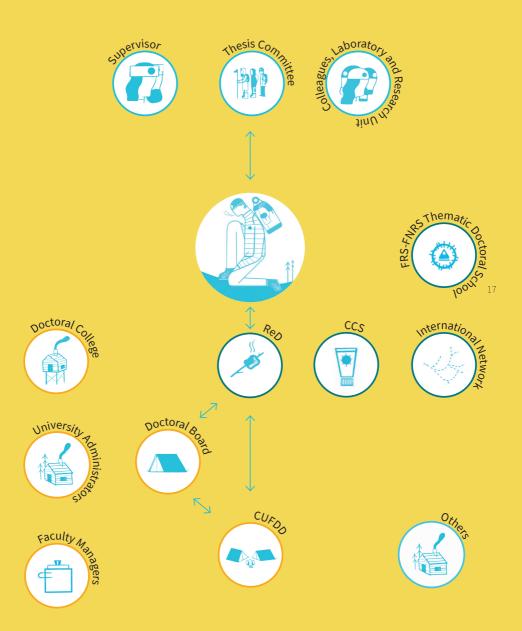
→ The University's administration is available as an important resource, in particular the Doctoral Office which oversees all doctoral issues.

#### **Peer Networks**

- → The Network of Doctoral Students (known as the ReD) connects the doctoral candidates within each faculty.
- → Two additional associations offer support and act as representatives within the institution: the Council of Scientific Researchers (CCS) and the FNRS Researchers Committee.

#### **Others**

→ Do not forget that your family and friends are your best supporters through the ups and downs of your doctorate!



### To learn more about the available resources:

www.recherche.uliege.be/ressources-doctorat

# What does a doctoral degree entail?

Though each doctorate is unique in its own right, there are three aspects which are common to all PhD. Knowing them will assist you in your preparations.

#### 18

#### **Doctoral research**

Research is a daily practice of intellectual, operational and relational tasks which must be cultivated over time. This includes academic reading, field work and lab experiments, critical analysis and interpretation of results, hypothesis and solution suggestions, presenting research, discussions with colleagues, meetings with supervisors, travelling abroad, submitting publications, communicating with the general public, joining associations and among other things, writing your thesis.

#### **Doctoral training**

The training received during a PhD can be categorised into two main areas: the first is to increase knowledge in a particular field in order to develop a thesis project and the second is to develop the transferable skills needed for a successful career in research.

#### A public defence

In a thesis defence, PhD candidates present their thesis in public, in front of a jury who provides questions. This is the final step to complete a doctorate. It can be a source of stress but candidates must remember that they are well prepared for the public defence. Once completed, it's time to celebrate the new « Doctor » - a moment of great pride and accomplishment!

→ <u>A thesis defence:</u> youtube.com/watch?v=J8VvD070wzo



## What is a doctoral candidate's academic status?

PhD candidates find themselves a part of two academic communities, as they are considered simultaneously a student and a researcher.

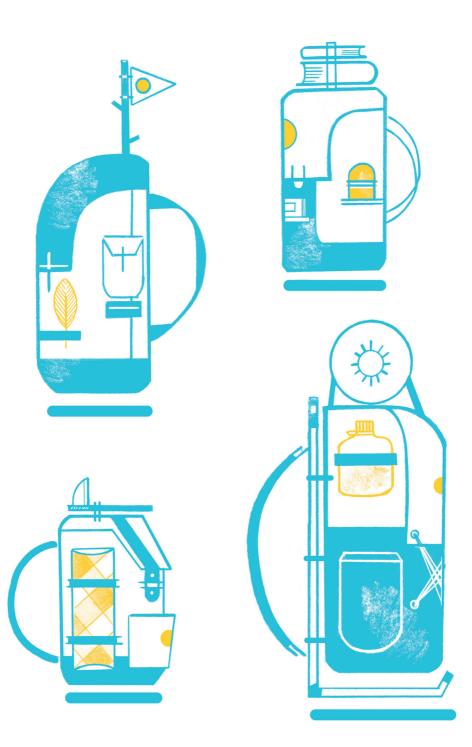
By law, a doctoral candidate is considered a student and therefore, as with a Master's degree, holds the status of «student». In accordance with European legislation, they are also considered a 'First Stage Researcher (R1)'.

PhD candidates may hold a doctoral fellowship or an employment contract from the university. In both cases, they benefit from social security in Belgium; it's the law. If candidates obtain a grant from their home country or from an external foundation, they obtain the benefits pertinent to the status accorded to that entity which rarely entitles them to social security benefits.

The ambiguous situation of being at the same time a student and a researcher can create challenges for institutions when managing a PhD portfolio, especially when candidates are attached to several institutions (universities, companies, organisations, etc.). This is why it is critical for PhD candidates to work closely with their host institution to coordinate all administrative matters.

#### Remember

- → The dual status of a PhD candidate has specific rights and obligations.
- → The efficacious path and support available from institutional resources.
- → The ULiège helpdesk in case of questions: doctorat@uliege.be



## How to obtain funding?

# This is a critical question for those who wish to pursue a career in research. Unfortunately there is no quick answer...

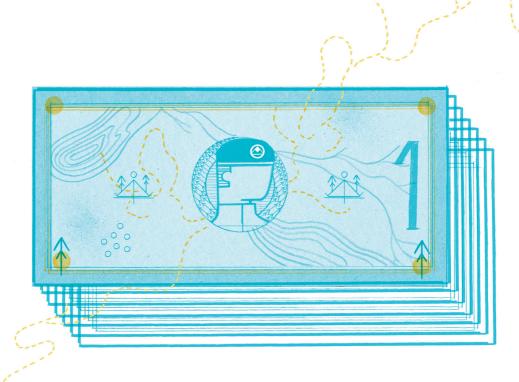
Education in the Wallonia-Brussels Federation is open to everyone. If the academic requirements are fulfilled (completion of a Master's degree awarded with distinction and an approved research project accepted by a faculty supervisor and the Doctoral Board) anyone can register for a PhD. However, many students are admitted without funding and this becomes their top priority.

#### **Funding a salary**

Calls for applications are highly competitive as there are many requests for funding, but a limited supply of funds. Candidates must carefully prepare their applications, demonstrating that they are the best person to drive the best project with the best team. Common sources of funding are found in assistantship programs, grants from the FNRS and associated funds such as FRIA and FRESH or from professors who have budgets for salaries. While institutions are selective, they have agreed to an open and transparent process based on individual merits. There is no magic trick for success, but everyone has a chance!

#### **Funding other needs**

Funding doctoral research includes several aspects that are often overlooked. In addition to a salary, the following items should be taken into account: general lab equipment, specialty instruments, books, field coursework travel and registration, computer and publication fees. mobility expenditures, etc. It's important to remember that a budget must cover 4-6 years of studies! Foreigners will have additional mobility costs when arriving in Belgium and it is therefore important to plan ahead, discuss options for funding with your supervisor and explore all possible options to maximize potential funding sources



#### What and how much to budget?

#### Estimated costs to consider:

- → Registration fee: €835 for the 1st year +€35 for each subsequent year
- → Laptop: €1000
- → European conference(s): €2000
- → Open Access publications: €3000
- → One month of field work or research outside of Europe: €6000
- → One organic analysis in a highly specialised machine: €10,000
- → One year of verified income required to access the Belgian territory as a student: €8,500
- → One year doctoral fellowship (true cost for employer): € 36,000
- → One year salary for a junior researcher on contract (true cost for employer): €60,000

# What career options are available with a PhD?

The employability rates for young PhD graduates is very high with many unique opportunities outside the university community.

The professional experience gained through a doctorate can lead to a variety of jobs in diverse sectors including public service, large corporations, NGOs, non-profit organizations, etc. Companies, in particular tech companies are in need of young people and their unique skills and often offer highly competitive and interesting positions. Other options to consider include business spin-offs, teaching and consulting firms.

Within the academic world, job opportunities are highly competitive and quite limited, but they do exist! These positions generally require a candidate to have completed a post-doctoral position in a distinguished foreign university, an opportunity that gives them a rich experience in global research, external best practices and an international network.

To find a pertinent post-doctoral position, new PhD researchers should explore all avenues of interest, connect with their network, and apply for positions published in specialised journal or sites. It's important to consider all opportunities and always put your best foot forward.

#### Remember

→ The ULiège Research & Development Administration organises training sessions and workshops for PhD graduates to help them identify, develop and promote the skills they acquired during their doctoral studies. https://www.recherche.uliege.be/books/formations-transversales/

Aving sold my PhD experience so well in the interview process, I felt a lot of pressure when I first started working. At first I wondered if I had oversold it during the interview! However, very quickly, I became aware of the value of the skills I had developed during my PhD and what they brought to the company: my ability to ask the right questions, to organise my work in the short and long term, to succinctly summarise my observations, to easily communicate complicated information and to go above and beyond the required outcomes of a project. A PhD allowed me to shine in my company- it was personally rewarding and externally valued.

Thomas, PhD in mathematics

## What's next? → youtube.com/watch?v=I4v0kJlC-AY

Whether you continue in academia or move into the private sector, finding a job after completing your thesis proves to be another challenge with new questions to affront.

#### What's up Doc?

→ youtu.be/y2bmIA74PN0

It is particularly important to identify key skills from your training and learn how to put your knowledge into practice in the business world. Read on to hear from 4 doctors who share their experiences of life after graduation.

#### PhD and a professional project

→ youtube.com/watch?v=gbiQoGFyLlw

Three fields of study; three professional projects, three doctorates.

They each defended their thesis and over the past 5 years have evolved their careers and their skills in the business world.

#### 26

## **Key Resources**

#### **Additional information**

#### Doctoral Studies in the Wallonia-Brussels Federation

http://www.doctorat.be

#### **ULiège Doctorate**

www.recherche.uliege.be/en/doctorate

#### **Departments & Services**

#### **Doctoral Affairs contact**

doctorat@uliege.be

#### **Enrollment services**

www.recherche.uliege.be/demarrer-une-these

#### **List of Doctoral Colleges**

www.recherche.uliege.be/codoc

#### **Rules & Guidelines**

www.recherche.uliege.be/regulation

#### Doctoral Transversal Skills Training

www.recherche.uliege.be/formations-chercheurs\_

#### **Funding & Support**

www.recherche.uliege.be/funding-and-support

#### Mobility and Euraxess

www.recherche.uliege.be/en/euraxess

#### **Networks**

#### Network of Doctoral Students (ReD)

- → www.recherche.uliege.be/red
- → red@uliege.be
- → Facebook : Réseau des Doctorants de l'ULiège (ReD)

CCS, Council of Scientific Researchers <a href="http://labos.ulg.ac.be/ccs/">http://labos.ulg.ac.be/ccs/</a>

FNRS contact committee at ULiège http://labos.ulg.ac.be/ccs/vos-representants/les-representants-aucomite-de-contact-fnrs/

Additional questions? doctorat@uliege.be



