

PhD Guide

Graduate School of Natural Sciences

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Graduate School of Natural Sciences, Utrecht University

PhD Guide



Feedback on the guide?
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The PhD Guide of the Graduate School of Natural Sciences (GSNS) of Utrecht University aims to provide you with (practical) information regarding various aspects of your PhD track at the GSNS. It is for information purposes only and no rights can be derived from its contents. Suggestions regarding the content can submitted through the feedback form on the GSNS website.

For the most up-to-date information, please check the <u>website of the GSNS</u>. Throughout this guide, you will find QR codes guiding you to the relevant webpages.

The first version of this PhD Guide is based on the one from the Graduate School of Life Sciences of Utrecht University (edited by Anke Hammerschlag and colleagues).



GSNS website

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Table of contents

Your PhD from start to finish	6
The PhD Checklist	7
1 - Your PhD at Utrecht University & the Graduate School of Natural Sciences UU's Doctoral Degree Regulations Categories of PhD candidates Supervisory team Mentorate The Graduate School of Natural Sciences	8 9 10 10
GSNS PhD Council	12
2 - At the beginning of your PhD MyPhD Training and Supervision Agreement (TSA)	13 13
3 - During your PhD	15
Annual PhD progress meeting and assessment & development interview (A&D) PhD Education	15 16
4 - Completing your PhD	18
GSNS PhD Thesis Requirements Thesis manuscript assessment The PhD defence: what to arrange?	18 19 20
5 - Support during your PhD	22
First line of support	22
Research support	23
Personal support	24
Practical support	25
Good to know	27

Welcome



Dear PhD candidate,

Welcome to the Graduate School of Natural Sciences!

You are at the beginning of an exciting new chapter in your academic career. Doing a PhD will give you the opportunity to dive deep into your academic area of interest, conduct and get inspired by state-of-the-art research, and to further develop your academic as well as transferable competencies. Our aim as Graduate School of Natural Sciences is to provide the optimal environment for you to do so.

At the Faculty of Science, open science and academic integrity are two of our leading principles. We consider teaching activities, belonging to and participating in the broader scientific community, and experiencing a safe and inspiring learning environment as crucial during your PhD.

To ensure that, we have appropriate support available for personal or research-related questions.

This guide aims to provide you with all the necessary practical information for each phase of your PhD. In addition, it aims to introduce you to key principles, regulations, and policies regarding PhD education. It also contains an overview of the different institutions and support structures at our university that are relevant to PhD candidates.

We hope you will have a most inspiring time at our faculty!

Prof. dr. Isabel Arends (Dean of the Faculty of Science)

Prof. dr. Bert Klein Gebbink (Vice-Dean of Education)

Prof. dr. Toine Pieters (Chair of the Graduate School of Natural Science)

Your PhD from start to finish



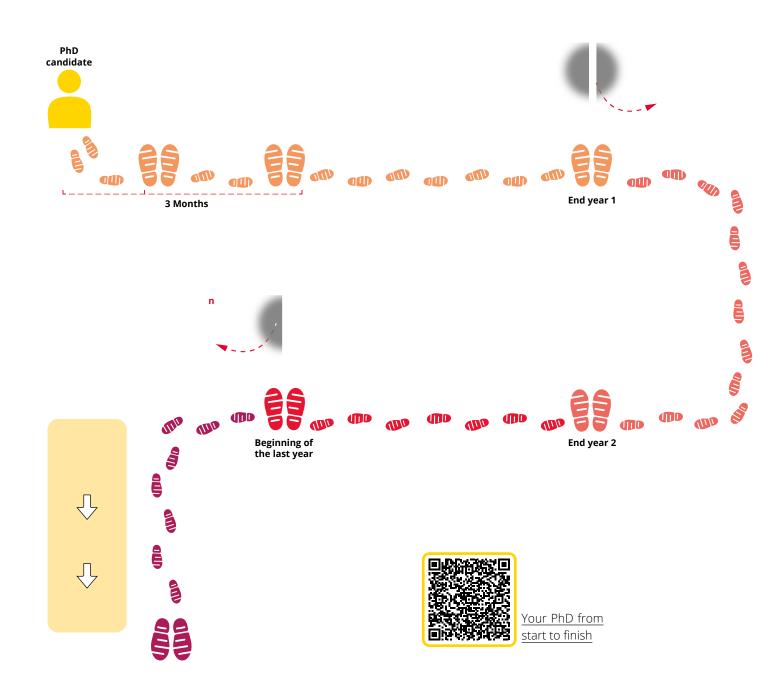


Figure 1 Your PhD from start to finish.

The PhD Checklist

At the beginning of your PhD

- ✓ Choose and appoint a mentor ➤ Chapter 1
- ✓ Register in *MyPhD*. Mandatory within the first 3 months of your PhD ➤ Chapter 2
- ✓ Complete the **Training and Supervision Agreement (TSA)** together with your supervisors. **Mandatory within the first 3 months of your PhD** ➤ Chapter 2
- ✓ Know the expectations regarding PhD education & compulsory training ➤ Chapter 3
- ✓ Know your rights and responsibilities ➤ Chapter 1
- ✓ Know where you can go for support during your PhD ➤ Chapter 5

During your PhD

- ✓ PhD Education & compulsory training ➤ Chapter 3
- ✓ Arrange your annual PhD progress meetings with your supervisory team ➤ Chapter 3
 Please note: PhD candidates with an employee status can combine the annual PhD progress meeting with their assessment and development interview ➤ Chapter 3
- ✓ Your 1st annual PhD progress meeting can include the **go/no-go decision** ➤ Chapter 3
- ✓ Make a plan of completion for your last year together with your supervisors during you annual PhD progress meeting.
- ✓ Arrange for regular meetings with your mentor ➤ Chapter 1

Completing your PhD

- ✓ Know your options for after your PhD contact career services ➤ Chapter 5
- ✓ Make sure that your thesis manuscript is conform with **doctoral thesis requirements and the GSNS thesis**guidelines & hand it in to your supervisory team ➤ Chapter 4
- ✓ Once approved by your supervisors upload your thesis manuscript to *MyPhD*.
- ✓ Your supervisory team will appoint an **Assessment Committee** (to be approved by the Board for the Conferral of Doctoral Degrees) and send them your manuscript through *MyPhD* ➤ Chapter 4
- ✓ Once your Assessment Committee has been approved, contact the **Beadle's Office** to set a preliminary date for your PhD defence.
- ✓ When your doctoral thesis has been approved by the Assessment Committee, the preliminary date of your defence will be changed to a definite date.
- ✓ Know the arrangements to be made for your **PhD defence ceremony**. Including deadlines ➤ <u>Chapter 4</u>
- ✓ Optional: Request a GSNS PhD Training Certificate
- ✓ Defend your doctoral thesis. Congratulations!

1 - Your PhD at Utrecht University & the Graduate School of Natural Sciences

As a PhD candidate you are part of a research group that is affiliated to a research institute and department, but you are also part of the discipline overarching Graduate School of Natural Science (GSNS) and the greater (research) community of the Faculty of Science and Utrecht University.

Being part of these communities means gaining access to a wide array of facilities and possibilities to develop as well as support on multiple levels during your PhD. It also means complying with the principles and values that have been agreed upon within the wider communities. For example, Utrecht University is committed to transition to <u>Open Science</u> and to improve diversity and inclusion in education, research and the organisation in general.

Research personnel at Utrecht University (which includes PhD candidates) are required to comply with the **Netherlands' Code of Conduct for Research Integrity,** which sets out the principles to be observed by all researchers, as well as the **Utrecht University's Code of Conduct** that describes the values which govern the way people work or study at our university. A separate set of specific regulations has been established at Utrecht University to prevent and combat inappropriate behaviour (see Codes of Conduct).



Open Science -Faculty of Science



Open Science -Utrecht University



Codes of Conduct



Equality, Diversity & Inclusion - Faculty
of Science



Equality, Diversity & Inclusion - Utrecht
University

UU's Doctoral Degree Regulations

PhD candidates and their supervisory team are required to ensure that the Doctoral Degree Regulations are being observed. The Doctoral Degree Regulations include legal stipulations as codified in the Dutch Higher Education and Research Act, as well as a number of regulations that have been set by the **Utrecht University Board for the Conferral of Doctoral Degrees** (see below). These stipulate e.g. who has access to the PhD Defence and how the Assessment Committee is to be assembled.



Doctoral Degree Regulations

Utrecht University Board for the Conferral of Doctoral Degrees

The Board for the Conferral of Doctoral Degrees (*College voor Promoties*) formulates the doctoral regulations and oversees their implementation. The Board for the Conferral of Doctoral Degrees is authorized to award doctoral degrees and advises the Executive Board regarding the appointment of professors. The Board for the Conferral of Doctoral Degrees is also formally in charge of appointing your supervisory team, assessment committee (*beoordelingscommissie*) and examination committee (*promotiecommissie*). In practice this means that they have to authorize and approve these in MyPhD.

The Board for the Conferral of Doctoral Degrees is formed by the Rector and one member of each faculty. Each faculty is represented by the Dean, or a professor designated by the Rector in consultation with the Dean. Each term, a maximum of four Deans have a seat on the Board.



Board for the Conferral of Doctoral Degrees

Categories of PhD candidates

In the Netherlands, PhD candidates are divided into four categories depending on employment status, as defined by the Association of Universities in the Netherlands (Universiteiten van Nederland; UNL).

Category 1 - PhD candidate with employee status

Employed as a PhD candidate (werknemer-promovendus) for a period of, usually, four years at Utrecht University. **Most PhD** candidates fall in this category.

This category also includes Utrecht University employees that combine their PhD with another type of appointment (promoverende medewerker). An example would be an employee of a support division (i.e. communication or IT support) or a lab technician that combines their work with pursuing a PhD at Utrecht University.

Category 2 - PhD candidate with a scholarship (beurspromovendus)

A PhD candidate with a scholarship does not have an employment contract with the university but receives funding for doctoral research from an external scholarship provider. In addition to the requirements of the scholarship programme, Utrecht University must admit you as a PhD candidate. This means that the PhD candidate has to meet the entrance requirements and should have a prospective supervisor affiliated with Utrecht University.

Category 3 - Externally funded PhD candidate (extern gefinancierde promovendus)

Externally funded PhD candidates have an employee status elsewhere (this might be at a government agency, company or external research institute) and are permitted to work on their doctoral research in their employer's time. Their salaries are therefore paid by their employers, but their doctoral research is conducted under the guidance of a supervisor at Utrecht University.

Category 4 - External PhD candidate (buitenpromovendus)

External PhD candidates receive no funding for their doctoral research in the form of a salary or scholarship (from Utrecht University or elsewhere) and obtain their PhD supported by their own resources. They do need to have a supervisor at Utrecht University, but won't have a dedicated workspace at Utrecht University. As such they are somewhat detached from the University, which demands a high degree of independence from the PhD candidate, especially since they often conduct their research in part-time. Nevertheless, external PhD candidates need to meet the same requirements as other PhDs to obtain their degree.

Please note: The Doctoral Degree Regulations describe the rights to supervision and duties of ALL PhD candidates, independent of category. Additionally, PhD candidates with the status of an employee (category 1 and 3) have a Labour Agreement with their institution which defines their rights and duties as employees. All Dutch Universities have a Collective Labour Agreement (*collectieve arbeidsovereenkomst; CAO*) which can be found on the <u>website of UNL</u>.



CAO - UNL

Supervisory team

PhD candidates are always, as defined by the Utrecht University Doctoral Degree Regulations, supervised by at least two and not more than four people (4-eyed principle):

The supervisor (*promotor*), the (optional) second supervisor (2^e *promotor*) and/or 1-2 co-supervisor(s) (*co-promotor*). Supervisors are full or associate professors (with *ius promovendi*, i.e. the right to supervise PhD candidates). Co-supervisors hold a doctorate, are experts in the relevant academic area and are not full professors. Co-supervisors should be involved in the daily supervision of the PhD Candidate.

Together with your supervisory team, you are jointly responsible for the quality of your research, the quality of your doctoral thesis and the development of your skills and competencies. Be sure that the division of the various supervisory tasks are clear at the beginning of your PhD. This includes daily supervision, mutual expectations regarding feedback and supervision, as well as the availability of resources and budget for your PhD. Record the agreements in the Teaching and Supervision Agreement (TSA; see p. 14).

Mentorate

Every PhD candidate at the GSNS should assign (or be assigned*) a mentor. Any Utrecht University researcher (assistant/ associate or full professor) can be a mentor, provided that they are not directly involved in your research project or research group and preferably work in a related field of research.

The role of a mentor is to be an informal sparring partner with whom you can talk about various aspects of your PhD. This can include independent advice on your academic progress or transferrable skills development, but could also be more general. The form of your mentorate – and this includes its frequency – depends on your needs as well as the possibilities and availability of your mentor. We encourage you to meet with your mentor **at least once a year** and potentially link it in time to your annual progress meeting (see p. 15). Make sure to be open about your expectations of the mentorate towards your prospective mentor beforehand or in your first meeting.

PhD candidates are advised to reach out to their mentor if they encounter a problem that cannot be solved with the supervisory team. You can talk to your mentor freely and confidentially in an informal way. Take advantage of their expertise in academia and have a chat over a cup of coffee or tea.

Register your mentor in *MyPhD***.** This should be part of your initial registration to MyPhD (see p. 13). Your supervisory team or other members of staff may help you identify a suitable person for this role.

^{*} There are local differences here. In some departments and institutes a general PhD mentor might be present that automatically is assigned to the PhD candidate. If that is not the case, the PhD candidate needs to assign a mentor themselves.

The Graduate School of Natural Sciences

The Graduate School of Natural Sciences (GSNS) is a large, multidisciplinary organisation with – in September 2023 – over a thousand master students in 14 programmes and approximately 400 PhD candidates at 9 Research Institutes, which are affiliated to the departments of Physics, Informatics, Mathematics, and Chemistry (see Figure 2).

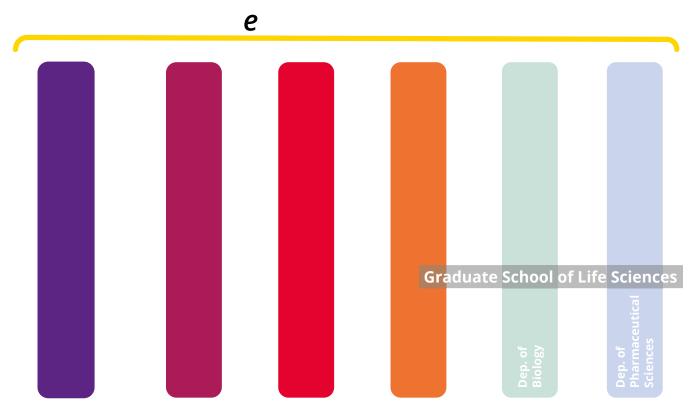


Figure 2 Graduate School of Natural Sciences & the Faculty of Science

You are a GSNS PhD candidate if your first supervisor (promotor) is appointed at one of the institutes that are affiliated to the Graduate School of Natural Sciences.

The main focus of the Graduate School and its Board of Studies is to assure the quality of education, including PhD education. As such, the GSNS has a team of policy advisors focussing on PhD policy and the GSNS Board of Studies has a permanent PhD representative who both work closely together with the GSNS PhD Council (see p. 12).

For its PhD candidates, the GSNS offers discipline overarching, transferrable skills courses (see p. 16) and the GSNS PhD team actively works on PhD policy with the aim to provide and safeguard an optimal environment for PhD candidates to develop both professionally and personally during their PhD. This includes improving the (working) conditions of PhD candidates where necessary and working on expanding and harmonising the course repertoire of the GSNS.

GSNS PND tean

If you have any questions regarding your PhD (e.g. regarding training or the doctoral degree regulations) you can contact the policy advisors of the GSNS. They are here to help. Email: science.phd@uu.nl.







Graduate School of Natural Sciences

GSNS PhD Council

The GSNS PhD Council consists of representative PhD candidates from the research institutes affiliated to the GSNS and advises the GSNS PhD team and Board of Studies on the quality of doctoral education. The council meets once a month and their activities include the evaluation of the PhD research environment through an bi-annual survey and organising (social) events for GSNS PhD candidates a few times a year.

You can contact the GSNS PhD Council for questions, suggestions or advice concerning PhD affairs. If needed, your institute's council representative can raise issues at a council meeting, the GSNS PhD team and eventually with the GSNS Board of Studies. Find the representative list and their contact details on the GSNS website.

Interested in joining the PhD Council?

E-mail them through phdcouncil.gsns@uu.nl



GSNS PhD Council

Other PhD networks:

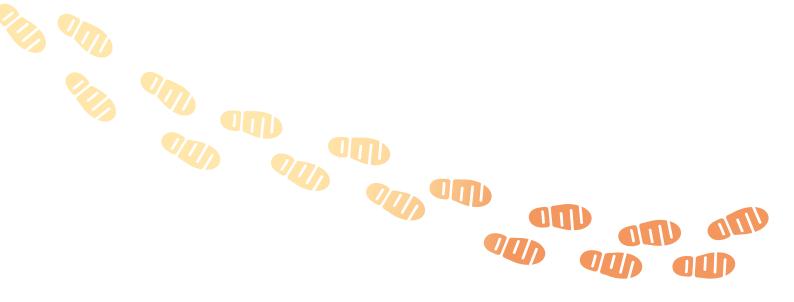
- ✓ PROUT (PhD network of Utrecht University) represents all PhD candidates of our University towards for instance the Executive Board of the University.
- ✓ PNN (Promovendi Netwerk Nederland) represents PhD candidates country-wide.



PROUT



PNN



2 - At the beginning of your PhD

MyPhD

MyPhD is the official administrative system that Utrecht University uses to register and track the progress of PhD candidates (promovendi-volgsysteem). It is mandatory for ALL PhD candidates, independent of category (see p. 9), to register to MyPhD. Register as soon as possible and preferably within the first 3 months of your time at Utrecht University. Administrative processes related to the PhD, i.e. the initial registration and the submission of the thesis, run through MyPhD in accordance with the rules and guidelines of the Utrecht University Board for the Conferral of Doctoral Degrees (p. 8). To register in MyPhD, you need to provide the following documents and information:

- ✓ An electronic copy of your most relevant degree, including the name of the institute, type of degree programme, type and date of degree. If you have questions about the validity of foreign or other degrees, please contact the Admissions Office (admissionsoffice@uu.nl).
- ✓ An electronic copy of a valid ID.
- ✓ Note for Dutch citizens: If you want, you can make your Citizens Service Number (BSN) illegible on the copy. Rijksoverheid.nl describes how to make a secure copy of your ID (only in Dutch).
- ✓ The working title of your doctoral thesis. This can be adjusted at any stage of your PhD.
- ✓ The composition of your supervisory team: If your supervisors have an employment contract at Utrecht University their information is automatically completed by MyPhD. If you have an external member within your supervisory team, you have to provide their details yourself. This includes full name, initials, title, e-mail address and name & postal address of their place of employment.
- ✓ Your choice of mentor (see p. 10).

For more information regarding MyPhD, please consult the MyPhD intranet page, the Utrecht University manuals page on MyPhD or contact the key-user for the Faculty of Science (contact details on the intranet or manuals page).

For more information about technical matters, please contact the IT Service Centre (ict-servicedesk@uu.nl; +31 (0)30 253 45 00)





MyPhD manual

Intranet

MyPhD intranet page

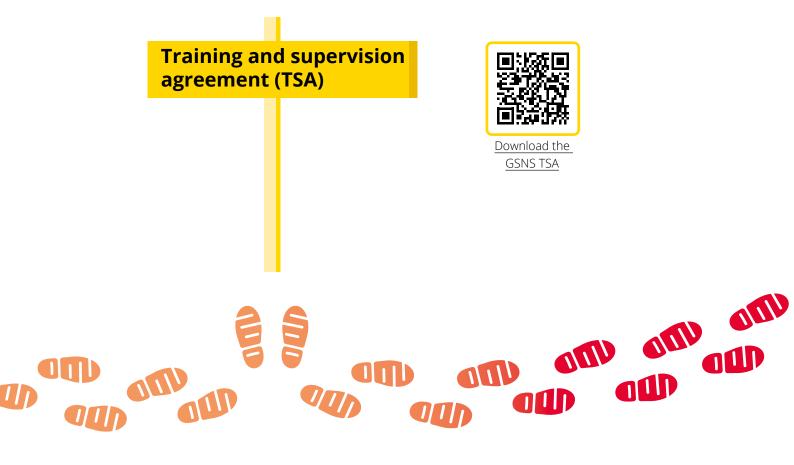
Training and Supervision Agreement (TSA)

The Training and Supervision Agreement is your **individual training plan** as well as an **agreement between you and your supervisory team** regarding supervision and your PhD education.

All PhD candidates are required to submit their TSA to MyPhD. This has to be done as early as possible, preferably within three months of the start of your PhD. Your supervisors will be asked to approve your TSA and thereby agree to finance your intended training programme.

Discuss the knowledge and skills you will need to develop during your PhD with your supervisory team, as well as mutual expectations concerning supervision and teaching tasks, and fill out the TSA together. Agreements made regarding for instance the go/no-go decision (see p. 15) or the frequency of meetings can also be recorded in the TSA.

Your intended training programme may constitute of a mixture of courses, seminars, symposia, etc. (<u>see p. 16</u> for more information) and can be adapted to your needs throughout your PhD. Revisit and use your TSA to monitor your development during your PhD and to prepare for your annual progress meetings (<u>see p. 15</u>). You **do not** have to resubmit an adjusted TSA to MyPhD.



3 - During your PhD

Annual PhD progress meeting and assessment & development interview (A&D)

All PhD candidates pursuing a PhD degree at Utrecht University are required to have an **annual PhD progress meeting** with their supervisory team to monitor the progress of their PhD. These meetings should also include the evaluation of supervision, discussion of training needs and general work circumstances.

For PhD candidates with an **employee status** (see p. 9) these are called **assessment & development interviews** (A&D; beoordeling en ontwikkeling (B&O) gesprek) and are coordinated by the HR department. The A&D requires a progress report (form to be downloaded from the <u>intranet</u>) that includes a reflection part written beforehand and the report of the meeting itself. The report will be part of the digital employees file with HR.

In contrast, the annual PhD progress meetings of PhD candidates **without an employee status** do not require formal documentation. However, we strongly suggest that the same procedure is followed and the same documentation is used as for the A&D interviews of employed PhD candidates. Alternatively, an exemplary form for the PhD progress meeting can be downloaded from the GSNS website.

Intranet



A&D interview details and forms



GSNS example
PhD Progress
meeting form

Go/no-go decision

The first annual progress meeting, at the end of the first year of a full-time PhD programme, also forms the basis for the **go/no-go decision**. The go/no go decision (go = continuing the PhD; no-go = not continuing the PhD) is a formal and binding decision whether to continue the PhD programme or not. The timing and stipulations of this decision may vary depending on local context, but it is often linked (in time) to the first PhD progress meeting and legally required to take place within the first 18 months of the (full-time) PhD. Make sure to discuss this with your supervisory team early on. Agreements made regarding the go/no-go decision can be recorded in the TSA (see p. 14).

Plan of completion

During the annual progress meeting – one year before your intended defence date – you need to draw up a **plan of completion** together with your supervisors. See <u>Chapter 4</u> for the practical matters you have to discuss. In addition, we recommend that PhD candidates and their supervisory team plan an additional progress meeting during the last phase of PhD (writing and submitting the thesis) to ensure that it runs as smoothly as possible.

Preparing for annual progress meetings

In preparation of the annual progress meetings, PhD candidates are encouraged to collect feedback from their colleagues and to reflect on their performance using the <u>TRIPLE model</u> (team spirit; research; impact; professional performance; leadership; and education). Additionally, the **PhD competencies self-assessment tool** (<u>PhD Competence Model</u>) can be used to monitor progress in the development of academic and transferable skills and to discuss training needs with supervisors. It can also be helpful to re-visit the individual training plan in your TSA (<u>see p. 14</u>) and use it as a basis for discussion.

Intranet



The TRIPLE model

PhD Education

Figure 3 <u>The PhD competence model</u> <u>Self-assessment tool</u>



Getting your PhD is more than just conducting a research project. It is also a time during which you are expected to develop, improve, and refine your academic and transferable skills.

A guideline for the competencies to develop is the **PhD Competence Model**, which outlines a set of core competencies that every PhD candidate should develop as a highly qualified research professional. The PhD Competence Model is in essence a self-assessment tool that aims to provide PhD candidates with a clear understanding of their training needs and enable them to direct their development more efficiently. PhD candidates are encouraged to use this tool to plan their skill training and monitor their progress throughout their PhD (see also TSA).

The PhD training programme is specific to the individual PhD candidate and may constitute of a mixture of education forms (e.g. courses, seminars, journal clubs, symposia, conferences etc.). In general, discipline specific training is offered within the research institutes or (inter-)national research schools. Research institutes might have guidelines instated that outline the number of seminars, conferences etc. to be followed by their PhD candidates. Make sure to know whether this is the case at your institute.

Courses and training in transferable skills are offered by the Graduate School or Utrecht University wide through the <u>Development Guide</u>.





GSNS PhD education



<u>Development</u> Guide

Objectives of the PhD programme

- ✓ Acquire discipline-specific knowledge to read, discuss and contribute to scientific literature in the domain of your research project.
- ✓ Develop practical and methodological knowledge and skills to collect, analyse, present, and discuss research data.
- ✓ Acquire the ability to (re)formulate scientific hypotheses and to design and implement a substantial research project.
- ✓ Develop transferable skills (e.g., with regard to teaching, management, writing, presenting, working in a team, applying for grants) to continue an academic career at a university or elsewhere in society.
- ✓ Become aware of the principles of open science and responsibilities of scientists towards society and the obligation to conduct science with integrity.

Learning outcomes for PhD candidates

According to the Doctoral Degree Regulations of Utrecht University, the PhD candidate:

- ✓ Should have made an original contribution to academic research of a quality that withstands peer review.
- ✓ Has demonstrated the ability to independently apply the academic methods used in their discipline for developing, interpreting and implementing new knowledge.
- ✓ Has acquired and worked with a substantial body of knowledge which, at the very least, embraces the principles and methods of international academic practice and theorisation, methodology and study in their discipline.
- ✓ Possesses the ability to design and implement a substantial research project.
- ✓ Can pass on knowledge and methods from their discipline or specialism in an effective way.
- ✓ Can exercise (social) responsibility and integrity in conducting, applying and making use of their own research.

Compulsory training

If you have started your PhD on or after September 1St 2021, training in **teaching** (if you have any teaching tasks) and **research integrity** are a compulsory part of your doctoral education. Research integrity training is provided by the GSNS in the form of the Responsible Conduct of Research modules.

For training in teaching, there are multiple possibilities depending on the teaching load and needs of the PhD candidate. These range from a training in supervising master students, to basic didactic training for employees who start to teach (e.g. Start to Teach from the Centre for Academic Teaching and learning (CAT) or Teacher Training for PhD Candidates from the Faculty of Science) and even to the training programme of our faculty to obtain the University Teaching Qualification (UTQ training programme; basiskwalificatie onderwijs (BKO) leergang) for PhD Candidates with **extended** teaching tasks.

Please visit the GSNS PhD education website for more information.

Registration of Training Activities & GSNS PhD Training Certificate

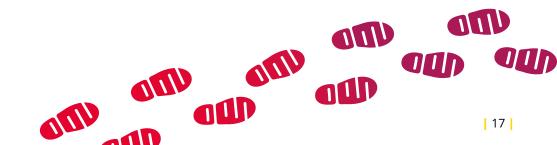
The PhD candidate is responsible for compiling their training portfolio through the registration of training activities in MyPhD and collecting certificates of attendance. Toward the end of your PhD, you can request a **GSNS Training Certificate** if your training profile meets the requirements outlined below.

In addition to your PhD Diploma, the Training Certificate demonstrates that you have actively participated in doctoral education and developed your personal competencies during your PhD. It also serves as transcript of the training that you have taken while pursuing your PhD.

To obtain a GSNS PhD Training Certificate, the PhD candidate should have done a minimum of 5 ECTS (European Credit Transfer System; 1 credit = 28 hours and 1.5 credits = 1 week) for each fulltime equivalent year of research appointment, which will be at least 3 years: 15-20 ECTS in total. A minimum of 20% of the total credits is spend on transferrable skill training.

Please <u>request your Training Certificate</u> **at least 8 weeks** before your defence using the application form available on our website.

Request Training
Certificate



4 - Completing your PhD

To graduate with a PhD title, the PhD candidate will write a doctoral thesis and defend it in public. The PhD candidate and the supervisory team are together responsible for the quality of the research presented in the doctoral thesis, according to the prevailing standards in their field. This and other requirements, procedures and responsibilities are outlined in the Doctoral Degree Regulations of Utrecht University (promotiereglement).

Please note:

- ▶ PhD candidates with an employee status (<u>see p. 9</u>) will have to submit their thesis manuscript to the Assessment Committee **before** the end of their contract.
- ➤ Eventual changes to the supervisory team have to be submitted to the Board of Conferral of Doctoral Degrees via the Dean at least 5 months before the PhD defence.



Doctoral Degree
Regulations

GSNS PhD Thesis Requirements

The doctoral thesis contains at least a **general introduction**, **publishable research chapters and a general discussion** that need to form a collective unit. Besides the scientific content, a concise curriculum vitae, a description of the composition of the assessment committee as well as (if written in English) a Dutch summary and translation of the title is obligatory in accordance to the doctoral degree regulations. Often laymen summaries and personal acknowledgements are added. At Utrecht University, propositions (*stellingen*) **are not** a part of the defence and PhD thesis.

General introduction

In the general introduction, the PhD candidate describes their view of the current state-of-the art in their discipline. Gaps in scientific knowledge are highlighted and an overview of the thesis is introduced. The general introduction contains information that readers need to know to comprehend the context of the research chapters. If a review article is used as part of the general introduction, a short general introduction and overview of the thesis must be added. There is **no minimum length** for the introduction; quality is the only criterium.

Research chapters

The GSNS defines a publishable research chapter as a (future) publication or a substantial part of a more extensive study. It is **not** a requirement that the chapters in your thesis are published. Nor is there a requirement for the number of research chapters in a thesis: quality, coherence, complexity and the specific contributions of the PhD candidate prevail over quantity. The guideline is three or more publishable chapters, but fewer can be justified, for example, by the extensiveness or the complexity of the work.

Each research chapter contains work that demonstrates that the PhD candidate has followed the scientific research cycle:

- ✓ Identification of the gap in scientific knowledge.
- ✓ Outline of the approach.
- ✓ Description of data collection and analysis, or analysis of existing databases.
- ✓ Reflection on the results within the context of the specific field.

The length and format of a chapter, the scientific depth, the quality of data collection and analysis thereof, should be of a level customary to the specific discipline.

General discussion

In this final chapter, the PhD candidate reflects with a birds-eye perspective on their research chapters and notable findings. Future opportunities for research are identified and the impact on the research field and society is discussed. There is explicitly **no minimum length** for the discussion; quality is the only criterion.

When can a chapter be part of my doctoral thesis?

Whether a body of work can be part of a PhD thesis as a chapter is determined by the degree of scientific contribution done by the PhD candidate and **not** by their position in a list of authors. Therefore, each chapter of the thesis should explicitly indicate **how the PhD candidate and other authors have contributed to the work**. If relevant, this also applies to the general introduction and discussion:

- > Only collection of data is not sufficient for inclusion of a chapter. The PhD candidate should have contributed to the complete scientific research cycle (see Research chapters).
- > If the PhD candidate, as part of a team effort, has conducted a crucial part of a larger study, but is not the first, second or last author, the work can still be included in your thesis, as long as the author contribution is clear. If the contribution to a study is not sufficient in itself to be a chapter, it may be supplemented with the candidate's own relevant work.
- ➤ A research chapter has to be **publishable**, which means that it does not have to be published nor submitted for publication at the time of thesis writing. However, later publication with the PhD candidate as (co-) author is strongly encouraged.



Examples author contribution statement

Thesis manuscript assessment

The procedures and regulations surrounding the assessment of a thesis manuscript and PhD defence are described in the Doctoral Degree Regulations (see p. 18)

- ✓ Your thesis manuscript is conform the doctoral thesis requirements and the GSNS thesis requirements.
- ✓ Hand in the manuscript to your supervisors who are required to provide feedback within 3 months.
- ✓ Upload final thesis manuscript to MyPhD.
- ✓ The supervisory team formally approves your thesis in MyPhD.
- ✓ The first supervisor receives a request to recommend an **Assessment Committee** (in MyPhD).
- ✓ Once approved, the Assessment Committee will receive a link to the uploaded manuscript with a request to perform the assessment within 4 weeks.
- ✓ As soon as your Assessment Committee has been approved, contact the Beadle's Office (via pedel@uu.nl) to set a preliminary date for your PhD defence.

THE THE THE

Assessment Committee

The Assessment Committee decides whether the manuscript demonstrates the PhD candidate's capacity for the independent pursuit of research to such an extent that the PhD candidate shall be admitted to defend their thesis. The members of the assessment committee are appointed by the Board of Conferral of Doctoral degrees, after recommendation by the supervisory team and according to the Doctoral Degree Regulations of Utrecht University. When committee members accept the invitation to take part in the committee, they are asked to document their decision **within four weeks** in MyPhD. They assess the manuscript based on four aspects: originality, scientific level, written presentation and an overall assessment.

They assess the manuscript based on four aspects: originality, scientific level, written presentation and an overall assessment. In addition, they are asked if the thesis might be awarded a *cum laude* (with distinction) designation; i.e., thesis quality is among the top 3-5% in the relevant field of research worldwide.

The PhD defence: what to arrange?

The PhD defence ceremonies of Utrecht University take place in the University Hall (*Academiegebouw*) in the centre of Utrecht. PhD candidates defend their thesis in front of opponents, the Doctoral Examination Committee, who are appointed by the Board of Conferral of Doctoral degrees, after recommendation by the first supervisor and in accordance with the Doctoral Degree Regulations of Utrecht University. Procedures leading up to the defence are outlined in the Instructions to the PhD Candidate from the Beadle's office.

Below we outline the steps to take from the thesis manuscript assessment to the PhD defence (see also <u>Required actions to</u> complete a PhD programme & Instruction for PhD Candidates):

- ✓ Once the assessment committee is approved: contact the **Beadle's Office** to set a preliminary date for the PhD defence.
- ✓ Know the Instructions to the PhD Candidate from the Beadle, including ceremonial customs.
- ✓ At least 2 ½ months before the defence: register the title page and its flipside in *MyPhD*, in compliance with the models shown there, and **obtain the approval of the beadle**.
- ✓ Once the manuscript has been approved by the assessment committee:
 - The first supervisor will receive a request to recommend the members of the Doctoral Examination Committee (Promotiecommissie) via MyPhD.
 - The preliminary date of the defence will become definitive.
 - A draft DOI (Digital Object Identifier) will be automatically assigned to the PhD thesis.
 - The PhD candidate may request an ISBN number and a Creative Commons licence (optional).
 - The thesis can be sent to the printer (provided that also the title page has been approved).
- ✓ **Optional:** Request the GSNS PhD Training Certificate **at least 8 weeks** before your defence.
- ✓ At least 6 weeks before the defence the PhD candidate records in MyPhD information for the University library and for the Communications & Marketing office.
- ✓ At least 3 weeks before the defence:
 - Provide (printed) copies of the thesis to the beadle and the examination committee.
 - Upload the final PDF of the thesis and cover (as sent to the printer) to MyPhD for library of Utrecht University.
 - Arrange an introductory meeting with the chair of the examination committee.
- ✓ Defend your thesis
- ✓ Celebrate!





Required actions to complete a PhD programme



Instructions for PhD Candidates by the Beadle



Request GSNS Training Certificate

Digital Distribution and long-term storage of the thesis - the University Library

PhD candidates of Utrecht University are required to provide a digital version of their thesis to the University Library. The library takes care of long-term storage of the thesis and incorporates it into the Utrecht University Repository, the digital scientific archive of the university that is publicly available. If it is problematic for PhD candidates to immediately publish their thesis online, it is possible to place an embargo on the thesis. This is done in *MyPhD*. The DOI and a potential ISBN need to be included in the PDF provided to the library.

Beadle Office

The Beadle (*pedel*) is a university official that acts as a master of ceremonies during PhD defences and other academic ceremonies. The Beadle's Office advises on - and assists with - these ceremonies. This includes the planning of PhD defences. Contact the Beadle's Office from Monday to Friday or send an email to pedel@uu.nl.



The Beadle Office

Examination Committee

The thesis defence takes place before an examination committee – the opponents – which are appointed by the Board for the Conferral of Doctoral Degrees on the recommendation of the first supervisor, with the approval of the Dean. The committee consists of voting and advisory members, as laid down in the <u>Doctoral Degree Regulations</u>.

PhD defence customs

The PhD defence in the Netherlands is public and has a strong ceremonial character. Among the customs to adhere to are specific clothing requirements and highly scripted speech as well as action sequences. Most of these customs and requirements are laid down in either the <u>Doctoral Degree Regulations</u> or the <u>instructions for PhD candidates</u> and will also be explained in detail to the PhD candidate by the chair of the examination committee before the defence. Ceremonial functions like the Beadle and Paranymphs also play an important part during the PhD defence.

Paranymphs (from Greek prefix para = alongside or next to; and $nymph\bar{e} = bride$; NL: paranimfen) can be compared to wedding witnesses and play a purely ceremonial role. Each PhD candidate appoints two paranymphs. These are often colleagues, but family members or friends are also possible. Paranymphs do not need to have knowledge of the dissertation. It is customary that the paranymphs aid the PhD candidate with the organisation of the festivities after the defence.

Another aspect of a PhD defence in the Netherlands is its highly scripted nature. At Utrecht University the time of the defence is strictly delineated to 45 min of opposition. This is safeguarded by the Beadle. Please note: contrary to other Dutch Universities, the opposition is not preceded by a laymen's talk at Utrecht University.

During the opposition, independent of the language of the defence, PhD candidates are required to formally address their opponents in Dutch when answering their first question. The terms of address depend on the status of the opponent (e.g. opposing professor, doctor or supervisor) and are defined in the Instructions for PhD candidates.

The opposition ends when the Beadle announces 'hora est' (lat.: it is time) and is followed by a closed-door deliberation of the examination committee. If the defence is deemed successful, the PhD candidate will then receive the doctoral degree with all the rights and obligations attached to it.

The ceremony is concluded by a *laudatio* to the new Doctor of Philosophy by a member of their supervisory team. The ceremony is often followed by a reception (at the University Hall), a dinner (with close family and friends as well as the supervisory team, paranymphs and sometimes even members of the examination committee) and further celebration during the evening.

PhD degree & Certificates

Upon successfully defending their thesis, the PhD candidate will receive a diploma written in Latin (degree certificate) and a translation in English, together with a legally valid English declaration of the doctorate. The PhD candidate can also receive the Training Certificate of the GSNS (see p. 17) on the day of their defence if they have applied for it.

If PhD graduates, following the PhD thesis defence ceremony, need a proof of their defence, this can be requested via the office of the Board of Conferral of Doctoral Degrees. If, however, they need a validated and certified copy of their diploma to use abroad, they need to contact DUO (*Dienst Uitvoering Onderwijs*).

5 - Support during your PhD

Utrecht University and the Faculty of Science offer multiple layers of support for PhD candidates, depending on the needs or nature of the situation. This includes - but is not limited to - research support, data management support and support in case of conflict or (personal) issues affecting work performance. Below, these support structures are briefly introduced.



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Figure 4: Support during your PhD.

First line of support

Your first line of support is formed by your supervisory team, your mentor and – depending on the situation - the Confidential Advisor for PhD candidates. If you are unsure which type of support you are looking for or need, you can reach out to them.

Supervisory team

Your supervisors are here for you to guide you through your PhD. Next to supervising and supporting your research progress and skills development, this also includes discussion of topics like workload, the supervision itself, and (personal) issues affecting performance. In case you do not find it easy to raise an issue with your supervisors, for example if the issue lies within the supervision itself or if it is of a particular personal nature, there are other support structures you can turn to. These are described below.

Mentor

Your mentor (see also <u>p. 10</u>) is another line of support that is easily accessible. A mentor can act as sparring partner regarding your research project, your (personal) development or when you encounter a problem during your PhD. Take advantage of their expertise but also keep in mind that there is a limit to the responsibility of your mentor and that certain situation might require a more specialized form of support.



Confidential advisor

The Faculty of Science has a dedicated <u>confidential advisor for PhD candidates</u> (vertrouwenspersoon voor promovendi). This confidential advisor is available for all PhD candidates of the Faculty of Science that experience inappropriate behaviour or work-related difficulties. These may for example relate to work atmosphere, the way in which problems are dealt with in your work environment, or the work relationship with your supervisor(s) or colleagues. The confidential advisor is an approachable, impartial person to talk to, who can offer advice and guidance as well as handle complaints.

All information that is shared with the confidential advisor, is treated in the strictest confidence. A confidential advisor will never disclose information without your consent. The advisor will inform, advise and refer you if necessary. At your request, the advisor can arrange mediation of personal or professional disputes between you and your supervisor(s) or other colleagues.



PhD confidential advisor

Research support

Research Data Management support

University-wide researchers can rely on data experts within the Research Data Management (RDM) support network for assistance, training or advice regarding the handling or analysis of research data. Expertise includes data management plans, FAIR data, but also IT solutions, information security and legal and ethical considerations regarding data privacy.

Relevant nodes of this support network for you are the **central RDM support office** at the Utrecht University library and the **local RDM support team** at the Faculty of Science as well as within (some) departments. Have a look on their respective websites for more information and an overview of the support and training/workshops they offer.



RDM Support
UU Central



RDM Support Faculty of Science

Research Support Offices

Each faculty has a Research Support Office (RSO). The RSO can help (senior) researchers to attract external funding and grants. Its staff give advice on identifying potential funds, on national and international grant opportunities and help researchers to write grant applications and draw up a budget.



RSO Faculty of Science

Research facilities

The faculty of Science has a wide range of research facilities that are available for both internal and external scientists. These facilities enable the sharing of expertise and instrumentation between institutes and aim to promote collaboration. A full list of all facilities at the faculty can be found on the website of the faculty. As the use of a particular facility depends highly on your research needs, we would like to highlight only the following two: **Scientific Instrumentation** & **Lili's Proto Lab**.

If you encounter a technical problem in your research or in your education project, the staff of **Scientific Instrumentation** may be able to help. No job is too small or too complex. The division is subdivided in (1) an Engineering group, (2) Production, Service and Maintenance and (3) the Glass Workshop, all of which can be found in the Caroline Bleeker building.



Research facilities - Faculty of Science

In the same building you can also find **Lili's Proto Lab (LPL)**, which is a place for students and staff alike to test creative ideas, to develop prototypes and share ideas and expertise. Instruments for 3D printing, laser cutting, microfluidics and robotics are accessible for general use. By organizing training and through mentoring of projects the staff of LPL support challenge-based projects and will help you with the prototyping process.



Lili's Protolab

Communication & Public Engagement

All members of the Faculty of Science, including PhD candidates, are encouraged to make use of the expertise of the Communications Department for assistance with internal and external communication, online engagement, and the design of diverse communication materials.

As a faculty we recognize the importance of public engagement and feel a responsibility to inform the public about what we do with public funding. Connecting science and the public (science communication) often requires a form of translation (in format or terminology). The external communication team, including press officers, are available to provide support in this regard.



Communication
Department

Personal support

PhD Psychologist

Utrecht University has a dedicated PhD psychologist. The PhD psychologist is well aware of the unique position that the PhD candidate occupies. As a result, the PhD psychologist is able to offer adequate help specifically tailored to the PhD candidate and offers psychological support for PhD students who struggle with psychological issues caused by their work as a PhD or that have a direct effect on their work. The support by the PhD psychologist lies in the area between the help offered by staff welfare services (see below) and the general mental healthcare service (*GGZ*).

The PhD psychologist is specialized in short-term treatment for:

- ✓ Anxiety issues;
- ✓ Mood complaints;
- ✓ Concentration problems;
- ✓ Fear of failure;
- ✓ Motivational issues.

In cases of acute mental stress, contact and consult with the PhD psychologist and/or your general practitioner.

They will provide the first line of healthcare and are able to refer you to more specialised help if necessary.

In addition, the PhD psychologist also gives training aimed at preventing psychological issues during a PhD.

Intranet



Social Safety within the Faculty of Science



The PhD Psychologist

Staff welfare service

The <u>staff welfare service</u> (Bedrijfsmaatschappelijk Werk) of the UU can provide short term support with an emphasis on the interaction between staff members and their (work) surroundings (psycho-social support with: high workload, stress, improving work-life balance, collaboration issues, insecurities around work, dealing with grief etc.). As issues often arise from a convergence of circumstances which may undermine your resilience, a Staff Welfare Officer can help you to bring clarity into a situation and provide advice on how to move forward.

Supervisors may also turn to a Staff Welfare Officer if they identify a (potential) problem of this nature with a PhD candidate.



Staff Welfare Service

The occupational health physician

Consulting the <u>occupational health physician</u> of Utrecht University (*bedrijfsarts; De nieuwe arts*) can be necessary or useful in various situations, for example in case of absence from work due to prolonged illness or to prevent absence in the first place. Preventative, standard or emergency consultations can be requested both **by you** (staff) as well as **for you** by your supervisor (manager). Preventative consultation can be done anonymously. In case of (prolonged) absence from work, the HR Department – in consultation with your supervisor (manager) - will invite you to attend an appointment with the occupational health physician. The physician will advise and guide you throughout recovery until you are fully able to resume work.



Occupational health physician

Confidential advisor inappropriate behaviour & Committee Interpersonal Integrity

Utrecht University has **two confidential advisors** dedicated to inappropriate behaviour. If you are confronted with inappropriate behaviour – even as a witness - you can contact these confidential advisors for advice and support (either in addition or instead of contacting the confidential advisor for PhDs). Inappropriate behaviour includes - but is not limited to - (sexual) harassment, discrimination, aggression, violence and bullying.

Formal notifications and complaints regarding violation of personal integrity are filed to the **Interpersonal Integrity Committee**, a neutral and independent committee that assesses complaints for their admissibility, investigates them and issues recommendations to the Executive Board of the University who decides on the complaint and measures to be taken. It is possible to contact the committee for an exploratory or informative talk about your situation, how the committee works and what you can expect from the complaints procedure if you decide to file one.



Talking to
someone about
inappropriate
behaviour

Faculty Person of Contact & Utrecht University Confidential Advisor for Research Integrity

If you encounter any dilemma or question regarding research integrity, you can always contact the faculty-specific person of contact for research integrity, who has been appointed for preventive purposes. Questions or complaints about research integrity can also be discussed with the confidential advisors for research integrity of Utrecht University. This includes suspicion or observation of an injustice (violation of integrity) and scientific misconduct.



Talking to someone about research integrity

Practical support

HR Service Desk

The central HR Service Desk is your first point of contact in case you have practical questions about employment conditions. They can help you with matters regarding the Self-service HR system, the Terms of Employment Options Model and other Utrecht University regulations. For any other HR related questions that they cannot answer, please contact the HR department of the Faculty of Science. You can also contact their department for any personal issues you might have.



HR service desk

International Service Desk

At the request of faculty HR departments, the International Service Desk (ISD) can apply for visas for international PhD candidates and guests, arrange extensions, help them to look for accommodation, give advice on insurance, bank accounts, taxes etc. In addition, the ISD organises social activities and an annual financial information market.



International Service Desk

Career Orientation

Career Services

Many of you will start your PhD with an academic research career in mind, but the reality is that only a small fraction of PhD candidates will continue in academia. Therefore, Career Services offers a wide variety of training, events and coaching to prepare you for your professional future, be it in- or outside of academia. All offered services are free and available to all PhD candidates at Utrecht University, including recent graduates.



Career Services

Work2Work

ONLY for PhD candidates that are employed by Utrecht University (category 1, see p. 9).

<u>Work2Work</u> is a re-employment coaching programme for all Utrecht University employees, that includes personal coaching with workshops to prepare you for the job market. The primary aim of Work2Work is the prevention of un-employment. As a PhD candidate you will be registered for the Work2Work programme automatically by HR, approximately 4 months before the official end date of your contract. PhD candidates who have taken part in PhACE will be offered a shortened Work2Work programme.

Intranet



Work2Work

PhACE

A few times a year, the Utrecht University organises <u>PhACE</u> (PhD Activating Career Event), a two-day career event for senior PhD candidates. The event includes talks by professionals in and outside of academica as well as workshops regarding career choices after completing a PhD and related personal development. More information can be found on their website.



PhACE

Good to know

Utrecht University PhD Manual

The Utrecht University $\underline{\mathsf{PhD}}$ manual provides general and practical information for both prospective and current \mathtt{PhD} candidates at any faculty of Utrecht University.



<u>Utrecht</u> <u>University PhD</u> Manual

Utrecht University Corporate Identity - huisstijl

Our <u>brand identity</u> is the basis from which we communicate. Images, text, presentation, podcasts and graphic design are made in line with Utrecht University's brand identity. That means that the prescribed fonts, colours, image style and the university logo are always incorporated into productions and resources. The corporate identity guidelines describe the way in which that can be done.



Utrecht
University
Corporate
Identity

Utrecht University Toolkit Communication

Everyone within Utrecht University comes in contact with many forms of communication and probably has areas or skills that they can and want to improve on. Whatever the goal might be: This toolkit provides you with tips, tricks and useful tools so that you can start working on it.

Intranet



Utrecht
University
Communication
toolkit

Feedback on this guide?

Did we miss something? Is something unclear?

Please let us know via the feedback form on the GSNS website.



Feedback form