

# The PhD @ TU Graz

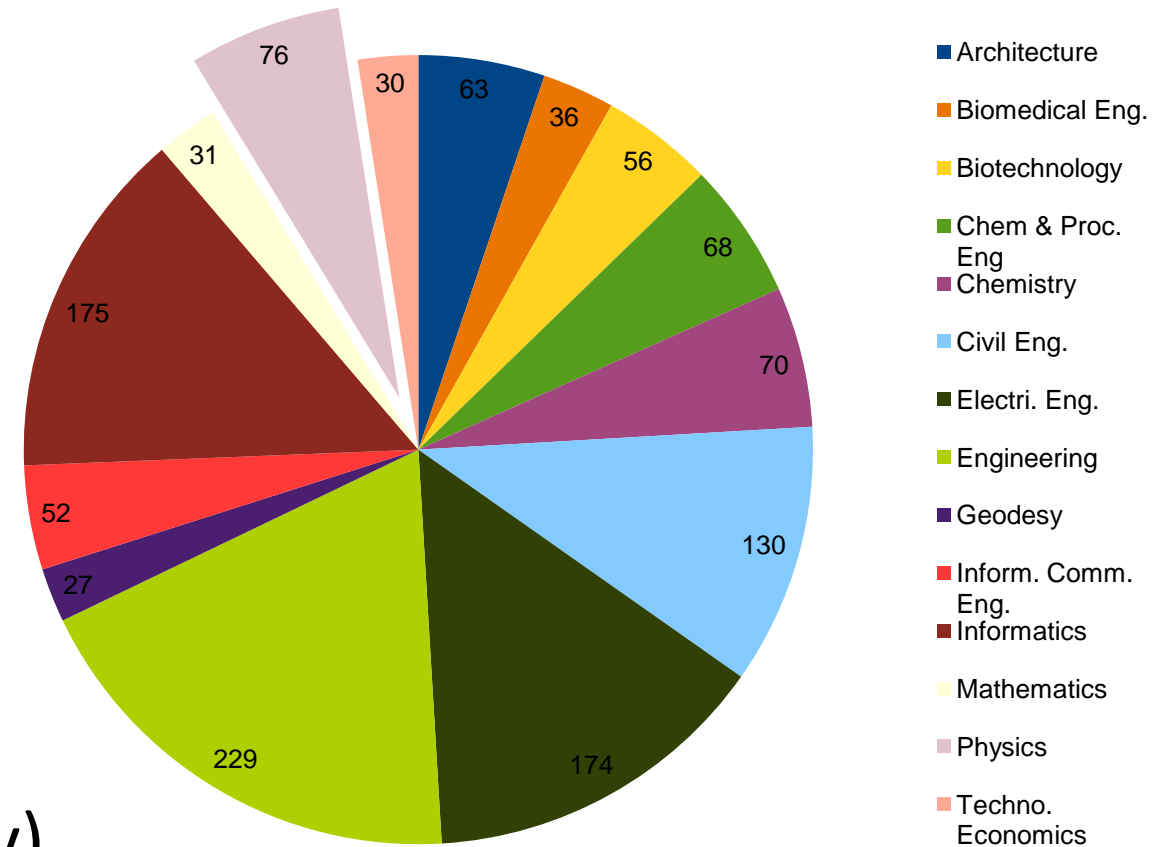
Andreas Jeindl

Student Representative of Doc School Physics

**This presentation will be uploaded to [dsp.tugraz.at](http://dsp.tugraz.at)**

- Overview over PhDs @ TU Graz
- Introduction to Curriculum and Statutes
- Your way to a PhD
- Tips and tricks
- Your legal representation

- Three groups:
  - Project Assistants
  - University Assistants
  - Other (external students)
- ~1200 in 14 Doc Schools
- Average duration? 3-5 years
- Most PhDs have an employment contract (either TU or another company)



Students by Doc School (2018)

## University Law

Statutes on the Study Law of TU Graz

Curriculum „Doktoratsstudium der Technischen Wissenschaften“ (Dr. techn.)

Curriculum „Doktoratsstudium der Naturwissenschaften“ (Dr. rer. nat.)

DOC SCHOOLS

Architecture

Biomed. Engineering

Chem. & Proc. Eng.

Chemistry

Civil Engineering

Computer Science

Electrical Eng

Geosciences

Info. Comm. Eng.

Math. Scient. Comp.

Mech. Eng.

Mol. Biosc. Biotech.

Physics

Techno-Economics

## Information in TU4U

(contains all documents of the Dekanat):

<http://dtp.tugraz.at/regulations.html>

The screenshot shows the TU4U intranet interface. At the top, it says 'TU4U: The intranet of TU Graz' with the TU Graz logo and the tagline 'SCIENCE · PASSION · TECHNOLOGY'. Below this is a navigation bar with tabs for 'Für Bedienstete', 'For students', and 'My TU4U'. There are also language options 'de | en' and a 'Logout' link. A search bar is present with the text 'Topics Service departments A – Z Forms & downloads'. Below the navigation bar, a breadcrumb trail reads: 'TU4U › For students › Organisation and administration › Student Administration through the Dean's Offices › Dean's Office of the Faculty of Mathematics, Physics and Geodesy › Degree Programmes in Physics › Doctoral School of Physics'. The main content area is titled 'Doctoral School of Physics' and contains a list of links: 'Curriculum' (with sub-links for 'Doctoral Programme in Technical Sciences' and 'Doctoral Programme in Natural Sciences'), 'Statutes of the Doctoral School of Physics', 'Implementation agreement from the NAWI Doctoral School of Physics (available in German)', and 'The Doctoral School of Physics on the TU Graz website'. On the right side, there is a sidebar with contact information for 'Degree Programmes in Physics' (email: physik.mpug@tugraz.at, phone: +43 316 873 - 8112), the 'Dean of Studies', and a 'Bookmark' section with the text 'Save page as bookmark' and 'You can find your bookmarks on page My TU4U'.

## Public website of Doc School

(links to Curriculum and Statutes):

<https://www.tugraz.at/studium/studienangebot/doktoratsstudien/doctors-school-physik>

The screenshot shows a public website for the Doctoral School of Physics. It features a dark blue background with white text. The content is organized into sections: 'Language of instruction: English', 'Admission requirements: see requirements for doctoral programmes >', 'Curricula:' (with sub-links for 'Curriculum Doctoral Programme in Technical Sciences' and 'Curriculum Doctoral Programme in Natural Sciences'), 'Curricula as of 1 October 2020:' (with sub-links for 'Curriculum Doctoral Programme in Technical Sciences' and 'Curriculum Doctoral Programme in Natural Sciences'), and 'Statutes:' (with a link for 'Statutes of the Doctoral School of Physics').

# The Curriculum of Doctoral Studies

Specifies how the PhD programme at TU Graz is structured

Graz University of Technology



Curriculum for the Doctoral Programme  
in Technical Sciences

Curriculum in the version of 2019

*Legal validity remains restricted to the German  
original*

The changes to the curriculum for the Doctoral Programme in Technical Sciences were decided by the Curricular Committee for Doctoral and University Certificate Programmes on 26 January 2019.

**New Curriculum  
active since 1.10.2020**

Contains:

§ 2 Admission, Curricular Workload and  
Period of Study

§ 3 Doctoral Schools

§ 4 Rights and Duties of PhD Supervisors  
and Students

§ 5 PhD Thesis

§ 6 Instructional Classes

§ 7 Thesis Defence

§ 8 Overall Assessment

Appendix: Explanatory Notes

## Regulates study details of the Doc School Physics

### Statutes of the Doctoral School of Physics



### Statutes of the Doctoral School of Physics

*Version of 2020-06* Adaptation to new curriculum; Conversion into new format; Specification of mentoring; Specification of the presentation of the doctoral project in the first year of study.

These statutes were written by the coordination team of the Doctoral School of Physics.

The Doctoral School constitutes the formal framework in which the members of the Doctoral School act. The members are made up of the employees with a *venia legendi* in the associated institutes as well as the assigned doctoral candidates. The coordination team for the Doctoral School, together with the officer responsible for study matters, is responsible for the content-related implementation of the subject-specific details according to § 3 (4) of the currently applicable curriculum.

The curriculum for the Doctoral Programme in Technical Sciences and the curriculum for the Doctoral Programme in Natural Sciences at Graz University of Technology are applicable in the currently valid version. References in this document refer to the version approved on January 15, 2019, which comes into effect on October 1, 2020.

#### 1. Scope of the Doctoral School of Physics

The doctoral programme at the Doctoral School of Physics (German title: Doctoral School für Physik) deals with problems in the technical and natural science field of physics and closely related subject areas. The doctoral programme develops the advanced abilities of the

### Contains:

- Academic Degree (Dr.techn. & Dr.rer.nat.)
- Member Institutes
- Publication Requirements
- Selection of Examiners
- Curricular Workload
- Mentoring
- Doctoral Exam

## New Statutes with new Curriculum

# What you need to do:

## Phase I

### Confirmation of Supervision

Written agreement of supervisor

### Admission

Sign up at Academic Advisory Service.  
Needed:  
Appropriate degree certificate, Confirmation of supervision, Possibly further documents

### Educational Agreement

PhD proposal written in accordance with supervisor

### Presentation

Presentation of PhD proposal and working plan within Doc School as a poster at the Doc Days

### Find Mentor

Contact Doc School Coordination Team to find mentor (not obligatory).

## Phase II

### Progress Reports

Yearly reflexion about

- Progress in own PhD
- Development of personal and professional competences
- Plan of next year

### Publications

Written communication of scientific results in scientific journals

### Conferences

Presentation of results in scientific environment

### Networking

Form collaborations within your institute, TU Graz, your scientific community

## Phase III

### Presubmission

*2 months prior to submission*

Notification of reviewers by the student and supervisor.  
Submission of preliminary form of dissertation to reviewers.  
Chance to implement reviewer's feedback before submission

### Submission

*At least 8 weeks prior to Rigorosum*

Deadline is extended in case of public holidays or lecture-free periods. In case of doubt ask at the Dekanat

### Rigorosum

Defence of thesis in front of examination board

- 30 minutes presentation
- 10 minutes questions regarding talk
- ≤ 60 minutes examination of the board

1st Year

2nd Year

Curricular Part

2 months

8 weeks

Final Year

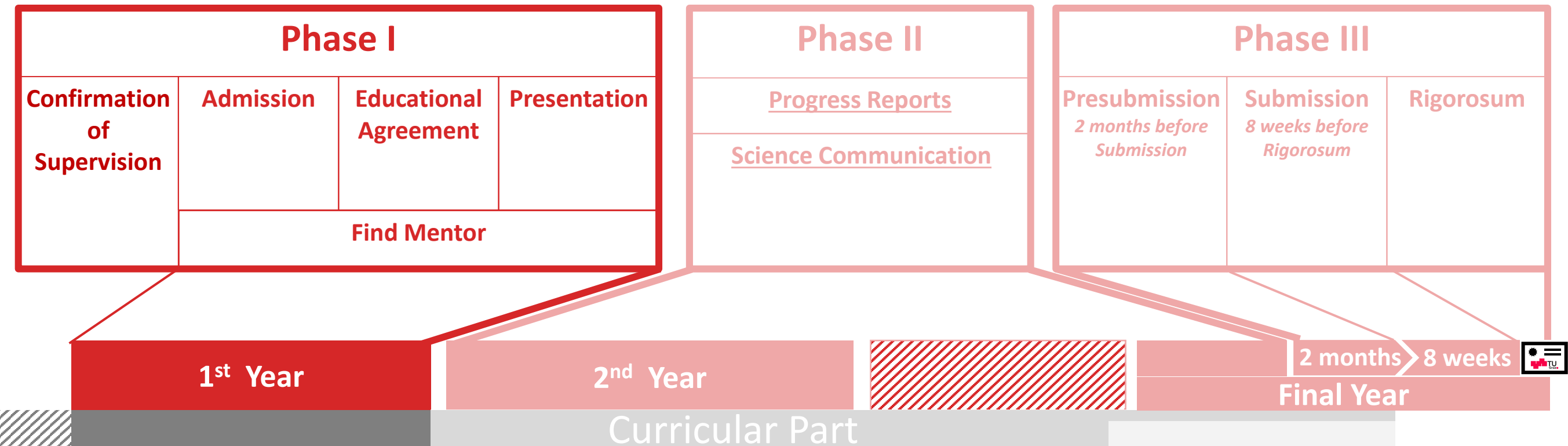
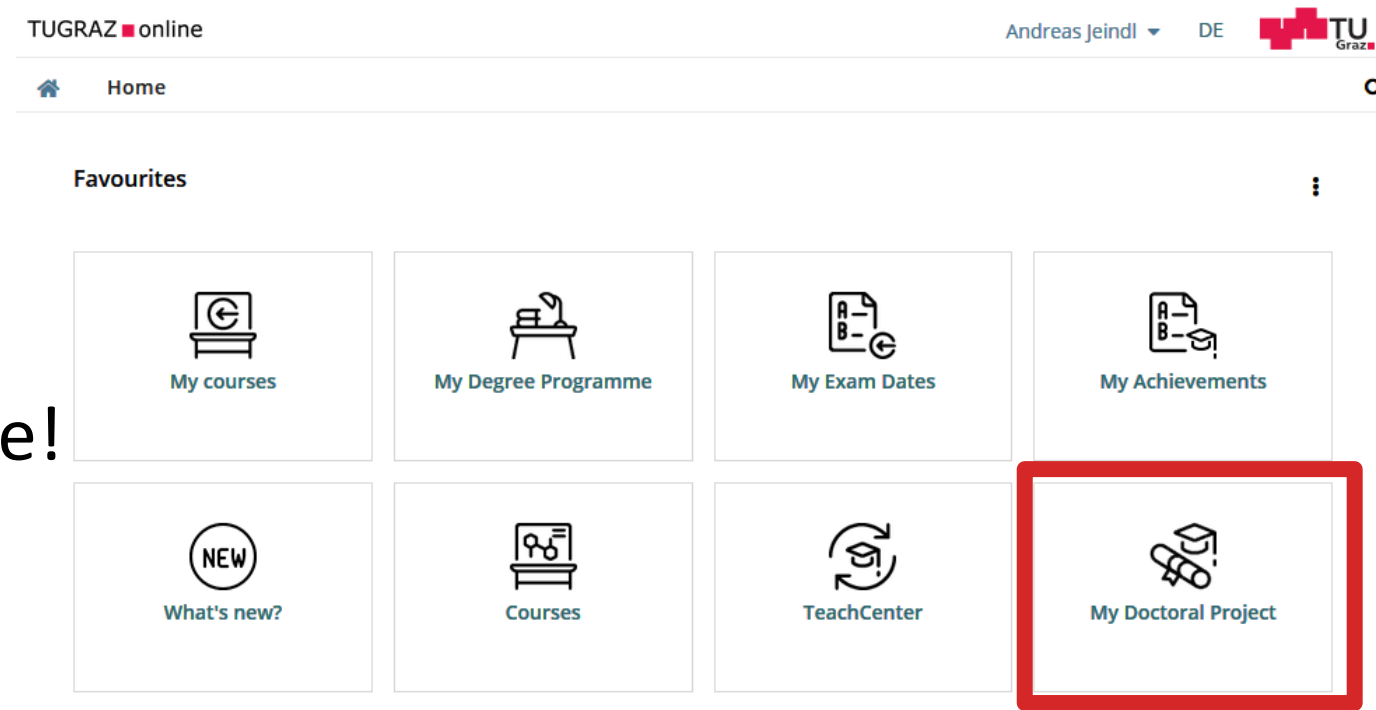




# Phase I: Start

## 1.) Educational Agreement:

- Online via “My Doctoral Project”
- Within 1<sup>st</sup> year, as early as possible!



## Studierendendetails



Dipl.-Ing.

**Jeindl Andreas**

BSc

✉ andreas.jeindl@student.tugraz.at

Studienstatus: registered

Betreuer/in: Zojer Egbert

## Phasenübersicht

Willkommen bei Ihrem Doktoratsmanagementsystem. Hier können Sie alle organisatorischen Angelegenheiten bezüglich Ihres Dissertationsvorhabens online erledigen.

### Ausbildungsvereinbarung

Mit der Abgabe der Ausbildungsvereinbarung beginnt das Arbeiten an der Dissertation. Nachdem die Ausbildungsvereinbarung akzeptiert wurde, können Fortschrittsberichte hochgeladen werden.



Ausbildungsvereinbarung

Dissertationsvorhaben bestätigt - 10.09.2019

### Fortschrittsberichte

Jährlich ist ein Fortschrittsbericht zu verfassen, in den der/die BetreuerIn (sowie die Mitglieder der Doctoral School mit Lehrbefugnis) Einsicht haben. Ziel ist die Reflexion über seine eigene geleistete Arbeit, über die erlernten Fähigkeiten und erworbenen Kenntnisse. Mit diesem Bericht soll sich der/die PhD Studierende einmal im Jahr mit der Frage auseinandersetzen, wie gut und wie weit die Arbeit an der Dissertation schon fortgeschritten ist. Es gilt etwaige Probleme zu ermitteln und früh genug gegenzusteuern.



Fortschrittsbericht ausfüllen

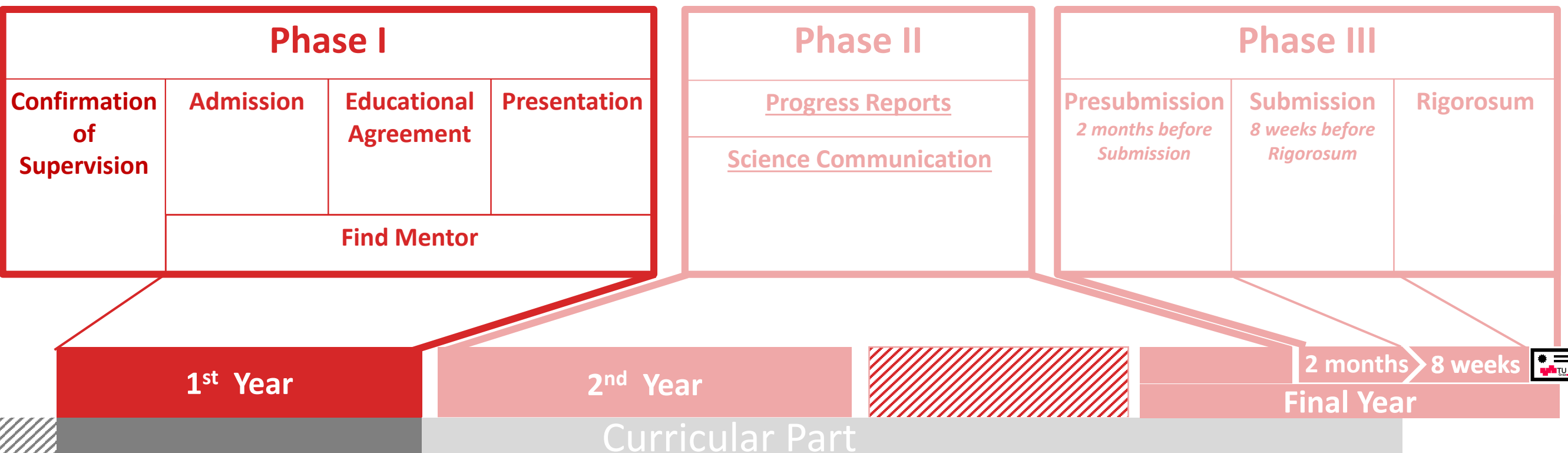
**Upload  
educational  
agreement**

# Phase I: Start

2.) Find a **mentor**: Informal **guidance throughout studies** (not obligatory)

- Propose a mentor yourself
- Talk to coordination team, we help you find one

3.) **Presentation** to Doc School: Poster with PhD-proposal @ Doc Day



# Phase I: Start

2.) Find a **mentor**: Informal **guidance throughout studies** (not obligatory)

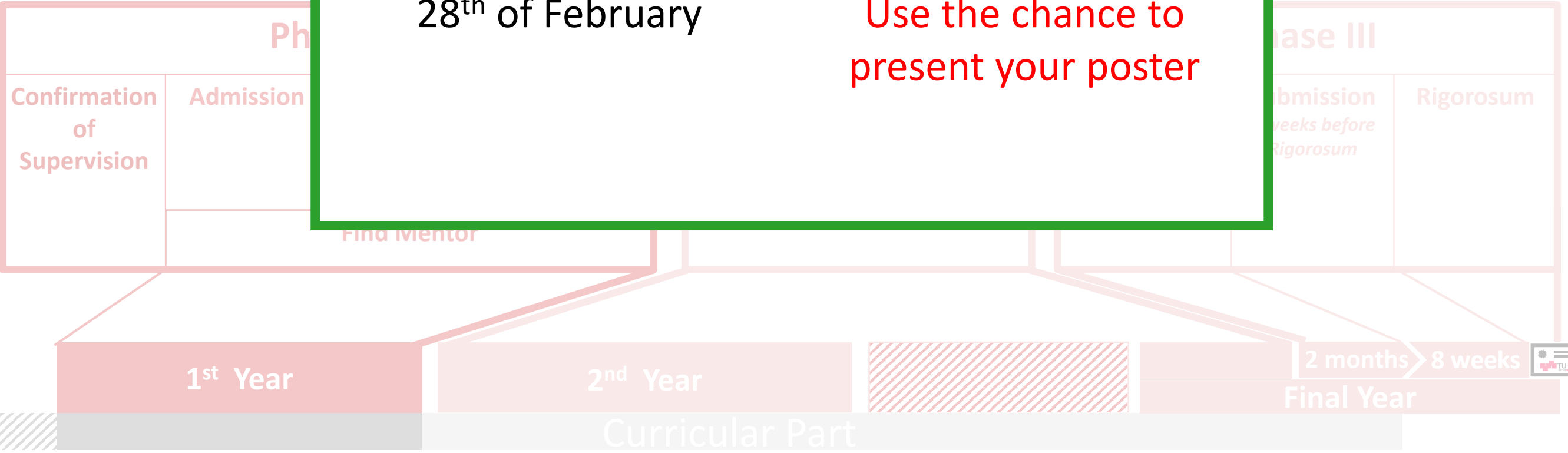
- Propose a mentor yourself
- Talk to coordination team, we help you find one

3.) Presentation

Next Doc Day

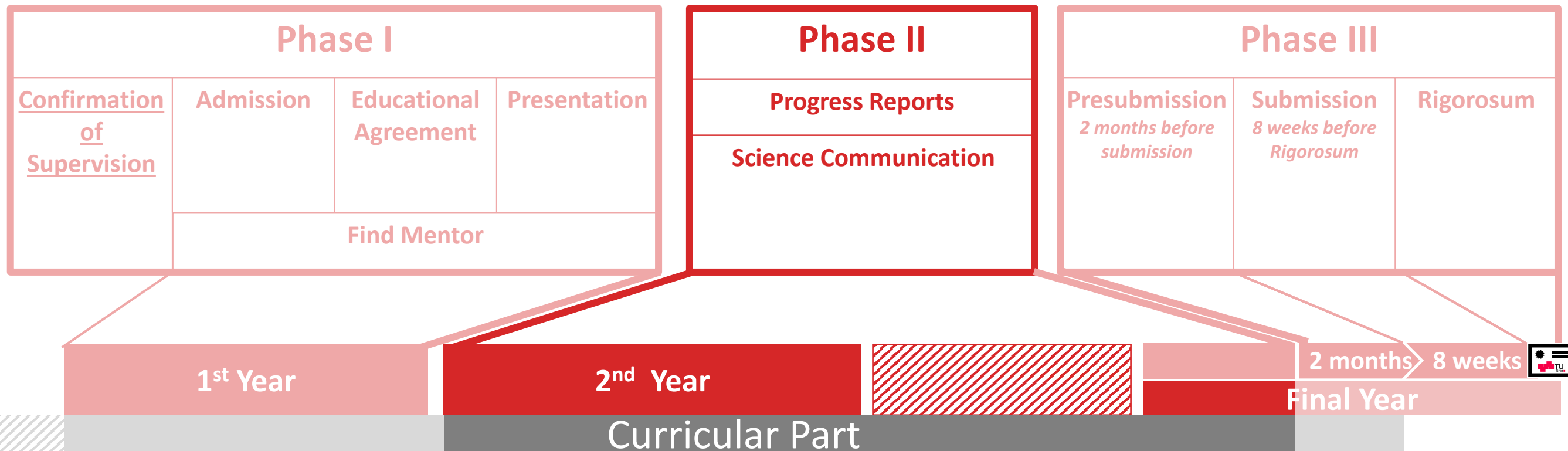
28<sup>th</sup> of February

Use the chance to present your poster



# Phase II: Progress

- **Yearly progress report:** What did you do? What did you learn?
- **Science Communication**
  - Peer reviewed articles
  - Conference attendance
  - Build scientific network



## Studierendendetails



Dipl.-Ing.

**Jeindl Andreas**

BSc

✉ andreas.jeindl@student.tugraz.at

Studienstatus: registered

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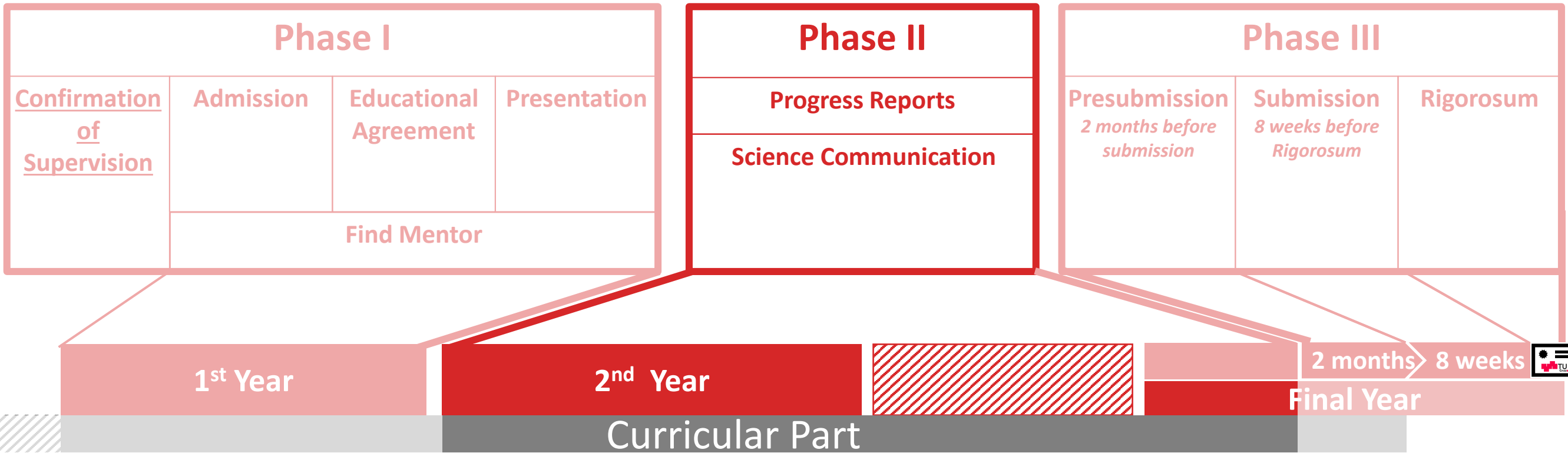


Fortschrittsbericht ausfüllen

**Upload annual  
report**

# Phase II: Curricular Part

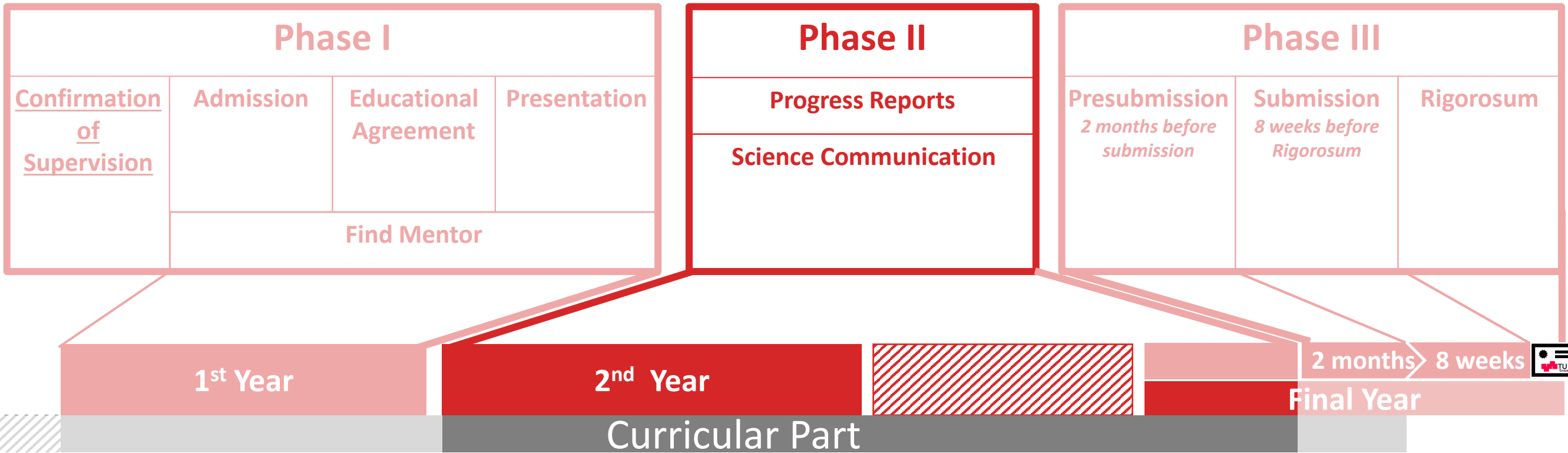
- **Oberseminar:** Poster during 1<sup>st</sup> year, presentation in last year.  
Participation at all Doc Days if possible
- **Scientific Working:**  
Seminar + attendance of Colloquia
- **Privatissimum** with supervisor



# Phase II: Curricular Part

- Elective courses
  - 6-8 SWS from Master's elective courses
  - 0-2 SWS PhD-relevant soft skills

Take courses from different institutes (not only yours).  
 All courses must be signed off by dean of studies.

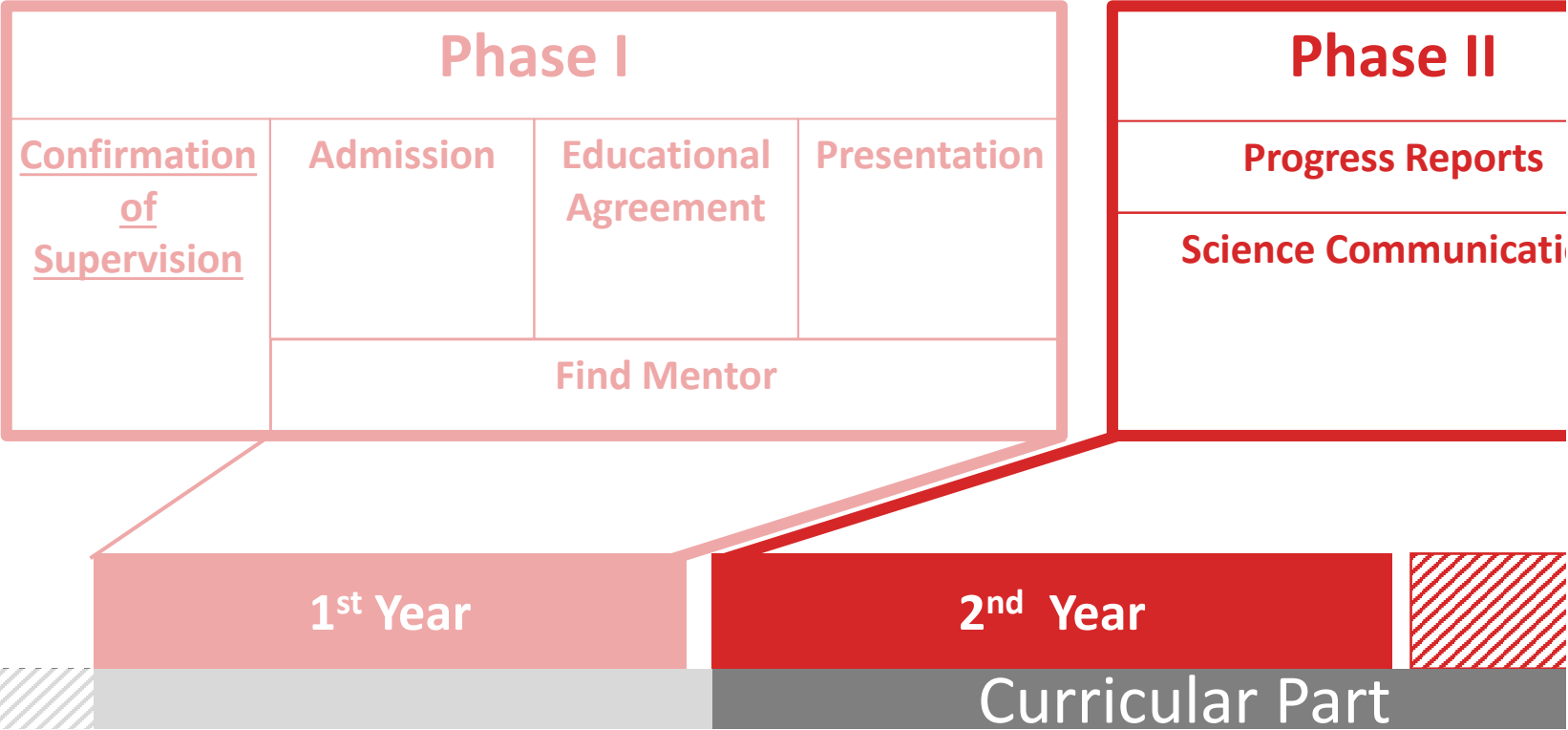




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Fakultät für Mathematik, Physik und Geodäsie  
Tel. 0316/873 8112, Fax 0316/873 8113  
[www.mpug.tugraz.at/dekanat](http://www.mpug.tugraz.at/dekanat)  
[physik.mpug@tugraz.at](mailto:physik.mpug@tugraz.at)

An das / To Dekanat der Fakultät für Mathematik, Physik und Geodäsie  
Studienrichtung Physik / Study Programme Physics

Meldung fachspezifische Basisfächer\* für das Studienjahr /  
Report subject specific basic courses\* for the academic year:

\*8 Semesterstunden (SSt) sind verpflichtend / 8 semester course hours (SSt) are obligatory

FAMILIENNAME, Vorname(n) / Surname, given name	
Matrikel-Nr. / Registration number	Studienkennzahl / Study Code
Beginn Doktoratsstudium / Beginning Doctoral Programme	

Aktuelles Studienjahr / Current academic year:				
LV-Nr. / Course no	LV-Titel / Course title	SSt	LV-Typ / Course type	Studienplanzuordnung / Curriculum version

Vergangene Studienjahre / Past academic years:				
LV-Nr. / Course no	LV-Titel / Course title	SSt	LV-Typ / Course type	Studienplanzuordnung / Curriculum version
		8,00		

	Unterschriften / Signatures	Datum / Date
DoktorandIn / Doctoral Student		
BetreuerIn / Supervisor		
Wird vom Dekanat eingeholt / To be collected by the Dean's Office		
StudiendekanIn / Dean of Studies		

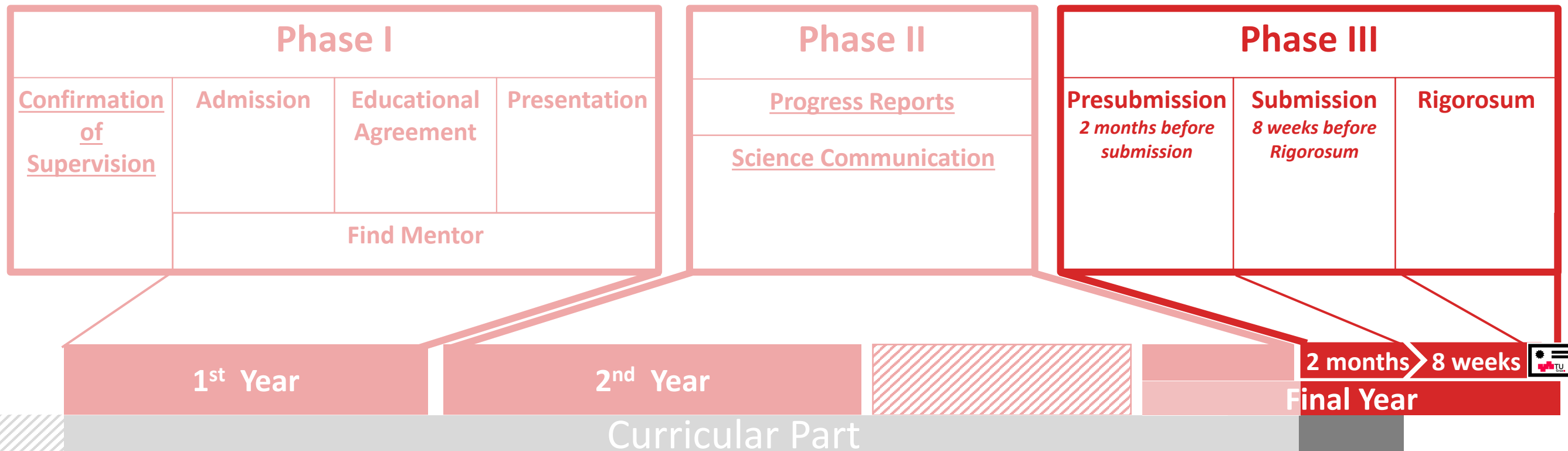
<http://dtp.tugraz.at/regulations.html>

# Phase III: Finishing Up

In principle part of doctoral management system

## Presubmission:

- 2 months before submission
- Inform coordination team about second assessor and publications
- Send current status of **dissertation to second assessor**
- Allow second assessor to give feedback before final submission

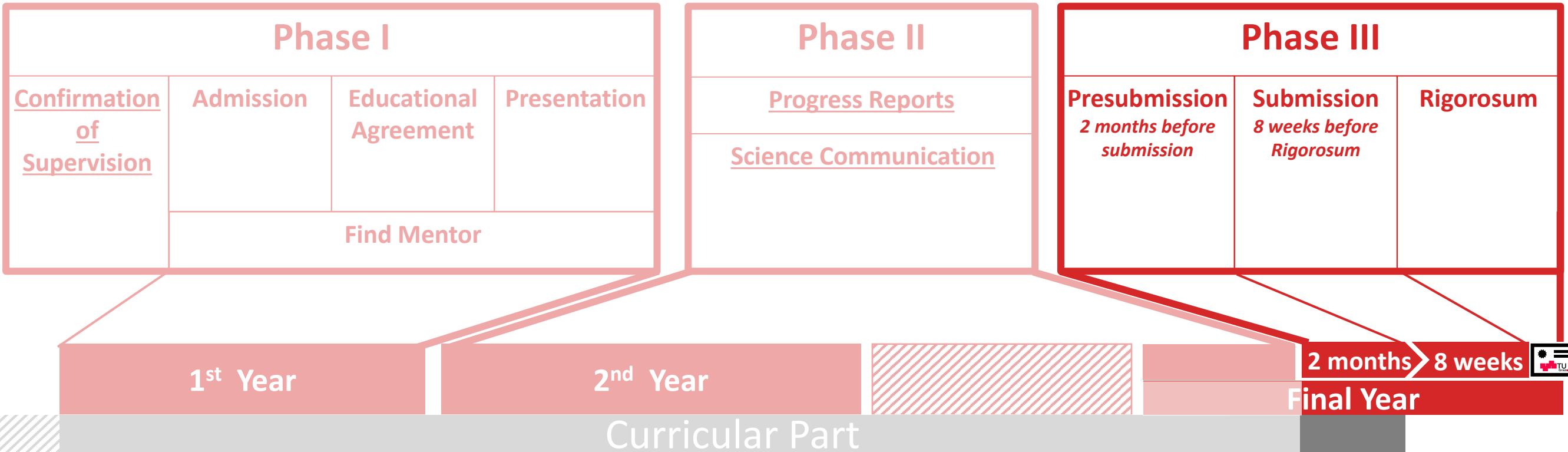


# Phase III: Finishing Up

In principle part of doctoral management system

## Submission:

- Minimum of **8 weeks before rigorosum**
- **Final submission** of dissertation to assessors

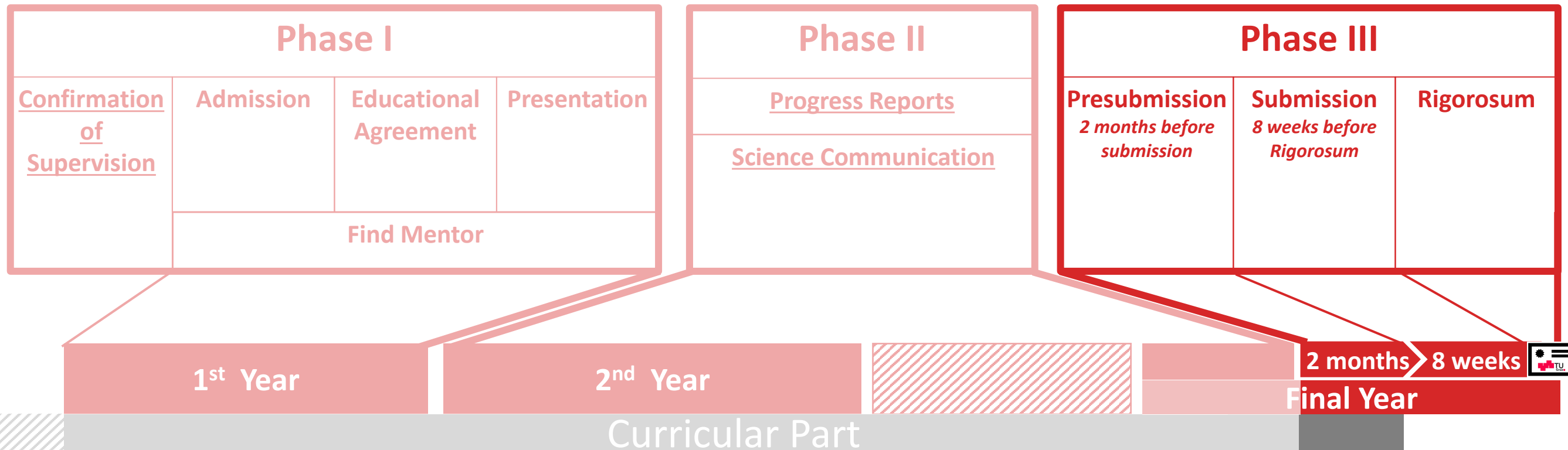


# Phase III: Finishing Up

In principle part of doctoral management system

## Rigorosum:

- Two examiners (three without publication)
- 30 minutes presentation
- 10 minutes discussion
- $\leq 60$  minutes examination by examining committee



# Documents for Submission (<http://dtp.tugraz.at/regulations.html>)



Fakultät für Mathematik, Physik und Geodäsie  
Tel.: 0316/873 8112, Fax: 0316/873 8113

[www.mpug.tugraz.at/dekanat](http://www.mpug.tugraz.at/dekanat)  
[physik.mpug@tugraz.at](mailto:physik.mpug@tugraz.at)

## ToDo-list

### Completion Doctoral Programme Technical Physics

#### 4 months before thesis defence

##### ☐ Initiation pre assessment

Submit the completed and signed form [Pre Assessment](#) for the preselection of the referees of the PhD thesis (in accordance with § 5 (3) Curriculum) at the [Dean's Office](#). The referees are to be provided with a preliminary version of the PhD thesis.

#### To prepare before submission at the Dean's Office

☐ Grades of the courses in accordance with the curricular part (6 SSt) and subject specific basic courses (8 SSt) have to be completed.

☐ Discuss your cover page ([template cover page](#)) of the PhD thesis with the Dean of Studies before producing in hardcover. Submit the copy of the cover page at the Dean's Office.

☐ Upload your thesis in TUGRAZonline: Business card / thesis – have a look at [information sheet](#)

☐ If required: Discuss the application for an exclusion of use of the PhD thesis with the Dean of Studies, upload it in TUGRAZonline: Business card / thesis / embargo and submit the application at the Dean's Office.

☐ Arrange the date for the thesis defence (form [examination board and room reservation](#)) and discuss it with the Dean of Studies as chairperson.

#### 2 months before thesis defence – submission deadline at the Dean's Office

Submit the following documents:

☐ Form [examination board and room reservation](#)

☐ Form [verification of the plagiarism check](#)

☐ Questionnaire [Statistic Austria](#)

☐ 5 hardcover bounded thesis (for referees, Austrian National Library, University Library, concentricity departments of physic – this version will be forwarded to the Institute); if there are 3 referees 6 hardcover bounded thesis are required; exists an exclusion of use 4 hardcover bounded thesis are sufficient. Don't forget to sign the [affidavit](#) in your thesis.

If you want to participate in the graduation ceremony:

☐ form [Dates for the graduation ceremony](#)

☐ Confirmation about the payment of the € 10,00 for the roll, bank connection:  
IBAN: AT96 1200 0516 5610 1801, BIC: BKAUATWW, recipient: TU Graz,  
usage: Urkundenrolle

☐ If desired: confirmation about the payment of the € 25,00 for tie or scarf, bank connection: IBAN: AT20 2081 5002 0072 0324, BIC: STSPAT2G, recipient: Alumni TU Graz, usage: tie or scarf; OR you can buy it at Alumni-Beziehungen, Petersgasse 10, 8010 Graz.

Please take note about the [time schedule of the examination before the committee!](#)



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[www.mpug.tugraz.at/dekanat](http://www.mpug.tugraz.at/dekanat)  
[physik.mpug@tugraz.at](mailto:physik.mpug@tugraz.at)

## RIGOROSUM / THESIS DEFENCE

Vorschlag für den Prüfungssenat / *Nomination for the examination board*

Name Studierende/r / *Student's name*

\_\_\_\_\_

Matrikelnummer / *Registration number*

\_\_\_\_\_

Titel der Dissertation / *Title PhD thesis*

\_\_\_\_\_

Erstbegutachter/in und Prüfer/in /  
*First referee and examiner*

\_\_\_\_\_

Institut/Universität / *Institute/University*

\_\_\_\_\_

Zweitbegutachter/in und Prüfer/in /  
*Second referee and examiner*

\_\_\_\_\_

Institut/Universität / *Institute/University*

\_\_\_\_\_

Vorsitzende/r / *Chairperson*

\_\_\_\_\_

Institut/Universität / *Institute/University*

\_\_\_\_\_

### Genehmigung Studiendekan / *Authorisation by the Dean of Studies*

Datum / *Date* .....

Unterschrift / *Signature* .....

### Raumreservierung für das Rigorosum / *Room reservation thesis defense*

Datum des Rigorosums / *Date thesis defense* .....

Uhrzeit / *Time* .....

Raum-Nr., Ort / *Room number, place* .....

.....  
.....  
.....

.....  
Unterschrift Raumverwalter/in  
*Signature of authorized person*

## AFFIDAVIT

I declare that I have authored this thesis independently, that I have not used other than the declared sources/resources, and that I have explicitly indicated all material which has been quoted either literally or by content from the sources used. The text document uploaded to TUGRAZonline is identical to the present doctoral thesis.

## Bestätigung über die Durchführung der Plagiatsprüfung Affirmation of the plagiarism check

Ich habe als betreuende Person die Plagiatsprüfung für die folgende schriftliche bzw. wissenschaftliche Arbeit durchgeführt/ *As the supervisor I checked the following paper or academic thesis for plagiarism:*

- ☐ Seminararbeit/ *Seminar paper*
- ☐ Bachelorarbeit/ *Bachelor's paper*
- ☐ Diplomarbeit/ *Diploma thesis*
- ☐ Masterarbeit/ *Master's thesis*
- ☐ Masterarbeit Universitätslehrgang (ULG)/ *Master's thesis University Certificate Programme*
- ☐ Dissertation/ *Doctoral thesis*
- ☐ Habilitationsschrift/ *Habilitation scripture*

Titel der Arbeit/ *Title of the paper or thesis*

<http://dtp.tugraz.at/regulations.html>

First name and surname, university degree already held, e.g. MSc

**Title and  
subtitle of the thesis**  
max  
4 lines

## DOCTORAL THESIS

to achieve the university degree of  
Doktorin der technischen Wissenschaften  
submitted to

**Graz University of Technology**

Supervisor  
University degree, first name and surname of the supervisor  
max 2 lines

Name of the institute  
max 2 lines

Optional field (second supervisor/name of the faculty, etc.)  
max 2 lines

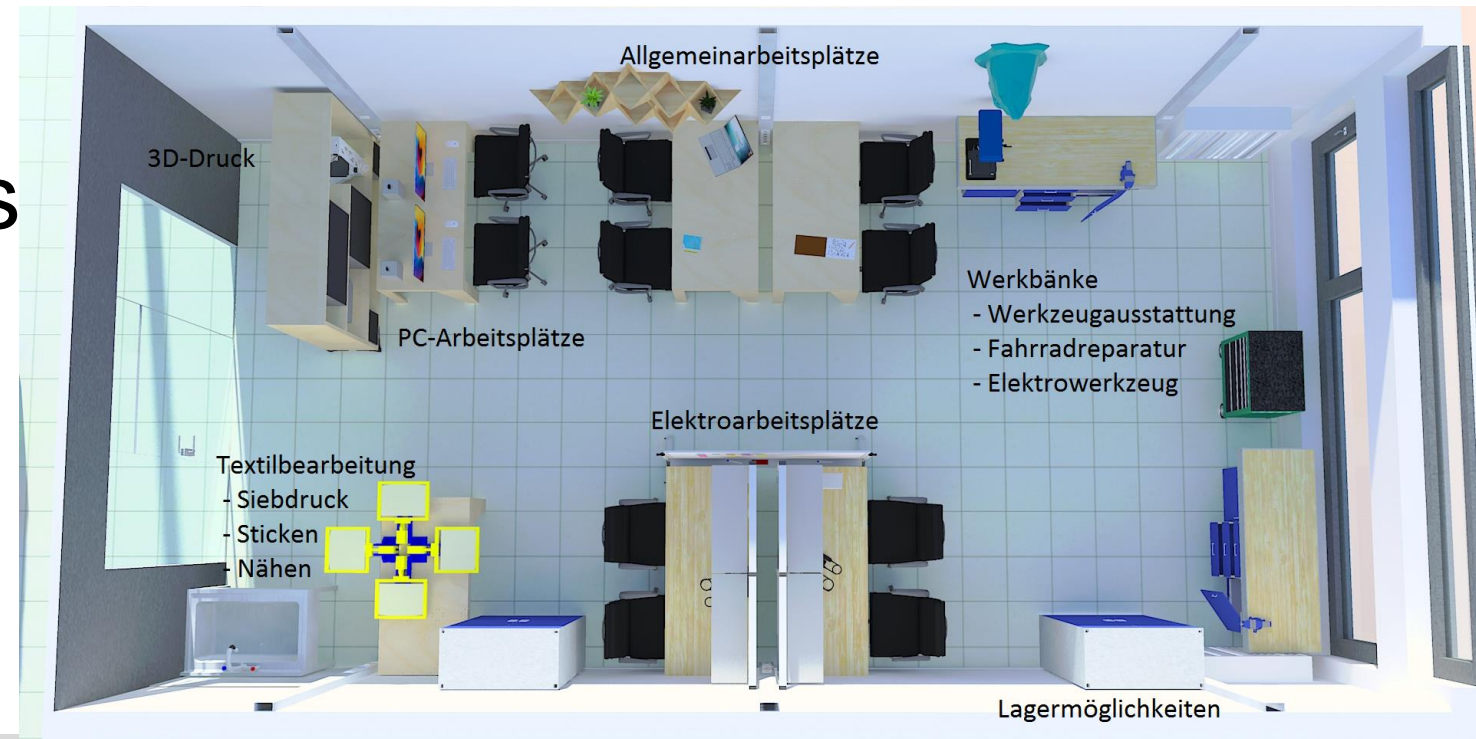
Graz, month and year

- Travelling is encouraged: **Erasmus+**
- PhDs are still students and have some of the bonus
- Employed PhDs are part of the „Mittelbau“ (advantages of employees: Bike, ...) and represented by the BRWiss
- PhD Union events



## HTU and other Makerspaces

- PhiLab, FabLab, Klangwerkstatt,
- 3D Print
- Various specialized tools
- Work on textiles, electronics, ...



Makerspace @HTU



## The PhD-Doctor: Index of Articles

Science

By Herman Lelieveldt | Jan. 30, 2004, 10:00 AM

Herman Lelieveldt's popular series offers advice on facing up to the hurdles and challenges of a PhD project. It is based on excerpts from his book *Promoveren—Een wegwijzer voor de beginnend wetenschapper* (Aksant, 2002, ISBN 90-5260-002-3).

Part 1: Planning and Time Management [ [in English](#) ]

Part 2: Getting a Grip on the Chaos [ [in English](#) ]

Part 3: What (Not) to Expect From Your Supervisor [ [in English](#) ]

Part 4: The Art of Finishing Up [ [in English](#) ]

Part 5: When Dissertation Writing Hurts (Repetitive Strain Injury and Burnout) [ [in English](#) ]



WWW.PHDCOMICS.COM

## **Doctoral School Physics**

Represented by the coordination  
team

## **PhD Union**

Legal Representation of all 14 Doc  
Schools at TU Graz

# What is the Doctoral School Physics

Network of all researchers in your field @ TU Graz

The coordination team

- Can change the Statutes
- Hosts the Doc Days  
(and other networking events)
- Pre-evaluates your thesis reviewers
- Helps you find a mentor

**Dean of Studies:**

Prof. Von der Linden

**Head of Doc School:**

Prof. Hadley

Prof. Aichhorn (Deputy)

**Student Members:**

Andreas Jeindl ([jeindl@tugraz.at](mailto:jeindl@tugraz.at))

Marianne Kräuter

**Other Members:**

All Professors with *venia docendi*

# What is the PhD Union

Official representation of all PhD students at TU Graz

## Head:

Lara Novak (Physics)

## Elected Members:

Patrick Lainer (Physics)

Clemens Stilianu

Georg Rudelstorfer

Zoraze Khan



[doktorat@htugraz.at](mailto:doktorat@htugraz.at)

[doktorat.htugraz.at](https://doktorat.htugraz.at)

[fb.me/phdgraz](https://fb.me/phdgraz)

# What is the PhD Union

Official representation of all PhD students at TU Graz



We

- aim to make life for PhDs better
- represent PhDs in official boards
- help PhDs in case of problems (just write us a mail)
- enable networking with your peers
- host multiple events specifically for PhDs throughout the year

doktorat@htugraz.at  
doktorat.htugraz.at  
fb.me/phdgraz

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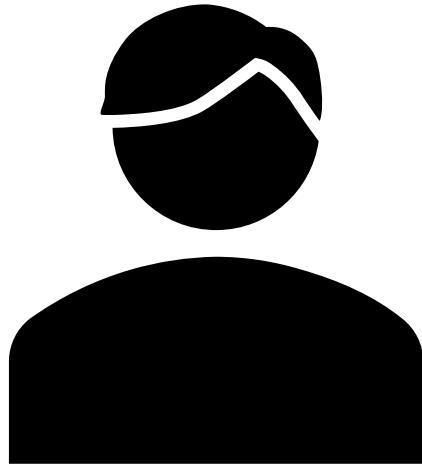


Curious? Then

- Join us on facebook
- Join one of our meetings (just write a mail)
- Become a **Doc School speaker (Election at Doc Day)**
- Host an event with us
- Just engage – everyone is invited

doktorat@htugraz.at  
doktorat.htugraz.at  
fb.me/phdgraz

# First Contacts For Questions



**Up for Election**



**Secretary of Dean's Office  
Martina Pichler  
martina.pichler@tugraz.at**

**Hannah Gruber  
Hannah.gruber@tugraz.at**



# Questions?



**This presentation will be uploaded to [dsp.tugraz.at](https://dsp.tugraz.at)**