TU Wien Informatics Doctoral School

Information Event
March 1, 2022

Andreas Steininger
Doctoral Education at our Faculty

common roof formed by
TU Wien Informatics Doctoral School

different ways of funding a doctoral degree at our faculty

- Doctoral Colleges
- Teaching Assistants
- Research Assistants
- Self-Funded PhDs

*different areas, different institutes, different supervisors, ...*

but the same curriculum, process, evaluation criteria apply to every doctoral student

the Doctoral School is not a secluded club –
every doctoral student is considered member of our Doctoral School
Mission:
✓ ...to provide you with an environment that encourages you to contribute to technology advancement through systematic, yet creative research. Our program enables you to become an independent researcher capable of generating, pursuing, and communicating novel research ideas. To achieve this, you will be involved in research activities as soon as possible.

Services (in tight cooperation with the Deans of Academic Affairs & Dean’s Office):
✓ maintain unified interface inside and to the outside (webpage, Q&A)
✓ implement the basic curriculum (mandatory lectures)
✓ organize guest lectures (selection, invitation, operation…)
✓ organize special courses in house (Current Trends in CS, Proposal Writing)
✓ stimulate teambuilding (social events)
✓ keep contact to doctoral students, provide aid (relay info, give pointers when problems)
✓ inform (events), coordinate, provide facts & figures
The Path to the Doctoral Degree

enrolment → proficiency exam → pre-submission

research proposal → thesis V1 → revised thesis

thesis agreement → 2 reviews → final submission

2 reviews → defense

6...18 mo → 8 wks reviewing → ~4wks revision → ~3wks reviewing → 2wks inspection
Top quality doesn’t come for free

- early feedback & transparency through proficiency exam
- extra guidance by PE members
- grading of thesis by 2 independent experts
- possibility for revision
- thesis & reviews open for inspection by faculty
Informatics

Structured Curriculum

PhD Defense

6.0 Fundamental Courses

3.0 PhD Seminar

9.0 Area Courses

Proficiency Exam

18 ECTS

PhD Curriculum

PhD Defense

6.0 Fundamental Courses

3.0 PhD Seminar

9.0 Area Courses

Proficiency Exam

3.0 Philosophy of Science
3.0 Fundamental Research Methods
3.0 Career Planning
3.0 Crafting Good Professional Life
3.0 Digital Humanism
3.0 Scientific Proposal Writing

3.0 Doc School’s Guest Professor course

Free Choice, related to PhD area

submission of plan after proficiency exam; needs approval!

Admission & Enrolment
As a reminder: In total minimum 18 ECTS required

**fundamental courses**
- Philosophy of Science
- Research & Career Planning for Doctoral Students
- Fundamental Research Methods for Doctoral Students
- Crafting Good Professional Life
- Digital Humanism
- Scientific Proposal Writing

*min 6 ECTS, min 1 methodology*

**area courses**
- PhD seminar, 3 ECTS
- visiting professor courses, min 3 ECTS
- own choice of courses related to research area

*min 12 ECTS, at most 6 ECTS seminar or PV*

*submission of plan after proficiency exam; need approval!*
Important Sources of Information

- Information of the Dean’s Office about Doctoral Study Process
  https://informatics.tuwien.ac.at/study-services/doctoral-graduation/

- Webpage of the TU Wien Informatics Doctoral School
  https://informatics.tuwien.ac.at/doctoral/

- Standard Procedure for Doctoral Program at the Faculty of Informatics
  https://informatics.tuwien.ac.at/doctoral/procedure/

- Registration to Doctoral School news:
  https://inn.tuwien.ac.at/socialevents_doctoralstudents

- Admission Office
  https://www.tuwien.at/en/studies/admission/the-conditions-for-international-students/doctoral-programme/
## TU Wien Informatics Doctoral School

### 2021W-2022S (2011U)

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<td>VU Research Methods in Computer Science</td>
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Fundamental Research Methods for Doctoral Students,
course 195.079
schedule: course start March 8

- Introduction to Methodologies and Paradigms
  G. Fitzpatrick
- Qualitative Methods
  G. Fitzpatrick
- Formal Methods
  U. Egly
- Quantitative Methods
  A. Posekany
- Design Methods
  C. Huemer
Area Courses by Guest Professors

- All VU 3.0

- **Design of Asynchronous Circuits and Systems**  
  Prof. Alex Yakovlev, Newcastle University  
  Course start: March 8

- **Software Testing: From Basic Concepts to Advanced Topics**  
  Prof. Leonardo Mariani, University of Milano-Bicocca  
  Course start: March 28

- **Software Design for Cyber-Physical Systems**  
  Prof. Edward Lee, University of California at Berkeley  
  Course start: May 2

- **Verification of Probabilistic Programs**  
  Prof. Joost-Pieter Katoen, RWTH Aachen and University of Twente  
  Course start: May 2
Area Courses by Guest Professors

- All VU 3.0

- AI Policies: The Evolving Legal Domain  
  Prof. Marc Rotenberg, Center for AI and Digital Policy, Georgetown Law  
  Course start: May 2

- Defeasible Reasoning  
  Prof. Thomas (Tommie) Meyer, University of Cape Town  
  Course start: May 17

- Design-for-Trust in VLSI Circuits  
  Prof. Ozgur Sinanoglu / New York University Abu Dhabi  
  Course start: May 30
Current Trends in Computer Science (VU 1.5, 195.072)

- Ring lecture with talks given by the guest professors of the current study year
- offered throughout winter and summer term
- Highly probable that we offer at least 6 talks in total during this study year 2021/22 (but uncertainties caused by Covid)
- requirements for positive grade:
  - Preferably students attend 5 talks, choose 3 of those for their report and give a summary of at least 2 pages for each.
  - For students who can only attend 4 talks, this summary must comprise at least 3 pages for each talk.
  - (The course will end after the summer term, a further combination with talks of the winter term 22/23 will not be possible.)
Elective courses, not to be counted for the 18 ECTS of our doctoral program

TU Wien Bibliothek offers a varied course & workshop programme for students and (young) researchers, from citing sources correctly to open access publishing and metrics to dissemination strategies for scientific research results.

For more information see:
https://www.tuwien.at/en/library/advisory-services-and-courses/courses

TU Wien’s HR Development Group offers support for different demands (refering to professional goals but also working conditions and working environment).
All information available here:
https://www.tuwien.at/en/tu-wien/organisation/central-divisions/hr-development/target-group-academic-staff

F.i. the WINA+ Program (Coaching for Predocs)
https://www.tuwien.at/en/tu-wien/organisation/central-divisions/hr-development/target-group-academic-staff/wina-coaching-for-predocs
You want to receive information about future social events

• please register here:

https://inn.tuwien.ac.at/socialevents_doctoralstudents
Thank you!