

# Official Gazette – Special Issue of the Paris Lodron University of Salzburg

---

This document does not represent a sworn translation, the original and authentic version is the German document issued in "Mitteilungsblatt Nr 389, June 28, 2022."

## Curriculum for the Doctoral Programme at the faculty of Digital and Analytical Sciences of the Paris Lodron Uni- versity of Salzburg

---

Curriculum 2022

### Contents

§ 1	General information	2
§ 2	Qualifications	2
§ 3	Structure and content of the study programme	2
§ 4	Research proposal	3
§ 5	Seminars for doctoral candidates	4
§ 6	Courses	4
§ 7	Professional development activities	4
§ 8	Doctoral thesis	5
§ 9	Public defence of the dissertation	5
§ 11	Entry into force	6
§ 12	Transitional provisions	6
	Imprint	6

In its meeting on 21.06.2022, the Senate of the Paris Lodron University of Salzburg enacted the curriculum for the doctoral programme of the Faculty of Digital and Analytical Sciences in the following version, as decided by the curriculum committee of the Faculty of Digital and Analytical Sciences of the University of Salzburg in its meeting on 20.06.2022.

The legal basis is the Federal Act on the Organisation of Universities and their Studies (Universities Act – UG, BGBl. I No. 120/2002) as well as the study law section of the University of Salzburg in the currently valid version. In particular, reference is made to the following regulations:

- Admission to Doctoral Programmes: § 64 para. 4, § 63a para. 7 UG
- Admission Periods: § 61 para. 1 UG
- Composition, Supervision and Grading of the Doctoral Thesis as well as the Doctoral Committee: § 83 UG and § 24 Statute
- Final Exam (*Rigorosum*) and Public Defence of the Doctoral Thesis: § 13 and § 18 Statute

Regarding the implementation of doctoral programmes, please refer to the "Standards & Recommendations of the Rectorate and the Senate on Quality in Doctoral Studies" (*Standards & Empfehlungen des Rektorats und des Senats zur Qualität im Doktoratsstudium*, Official Gazette no. 35 of 5, December 2014, text in German).

## § 1 General information

- (1) The doctoral degree programme Digital and Analytical Sciences equates to 180 ECTS credits. This is equivalent to six semesters of full-time study.
- (2) Graduates of the doctoral degree programme Digital and Analytical Sciences are awarded the academic degree of „Doctor of Technical Sciences, with the abbreviated designation of “Dr. techn.”.

In the event that the dissertation deals primarily with natural or life science issues, the academic degree "Doctor of Natural Sciences", abbreviated to “Dr. rer.nat.”, is awarded.

If the dissertation deals primarily with cultural or social science issues, the academic degree “Doctor of Philosophy”, abbreviated to “Dr. phil.”, is awarded.

- (3) Students with disabilities and/or chronic illnesses must not be discriminated against in any way during their studies. The Guiding Principles of the UN Convention on the Rights of Persons with Disabilities, the Federal Equal Treatment Act and appropriate academic adjustments apply.

## § 2 Qualifications

Graduates of this doctoral programme are qualified, among other things, in the following areas:

Knowledge: in-depth knowledge of the current state of international research in the field of knowledge of the dissertation and a good understanding of related research areas

Skills: Working independently on current scientific issues and publishing the results in quality media of international science

Competences: Development of new ideas and methods in research, industry and other application domains; Promotion and guidance of young scientists; role model effect in scientific and professional integrity

## § 3 Structure and content of the study programme

The doctoral programme Digital and Analytical Sciences comprises 3 modules, for which a total of 30 ECTS credits are available. The doctoral thesis is worth 150 ECTS credits. This includes the written thesis (research proposal) and its presentation, for which there is a possible 12 ECTS credits available, as well as the public defence, which is assessed with 8 ECTS credits.

The modules of the doctoral programme Digital and Analytical Sciences are listed below.

<b>Doctoral programme Digital and Analytical Sciences</b>				
<b>Module</b>	<b>Course</b>	<b>Hours</b>	<b>Type</b>	<b>ECTS</b>
<b>Module 1: Seminars for doctoral candidates</b>				
Seminars for doctoral candidates		1	SE	2
4-6 Seminars		4-6		8-12
<b>Module 2: Courses</b>				
				8-14
<b>Module 3: Professional development activities</b>				
				8-14
<b>Dissertation</b>				
				<b>150</b>
Written thesis (research proposal)				12
Public defence				8
<b>Total</b>				
				<b>180</b>

#### § 4 Research proposal

(§ 24 para. 4 Statute)

- (1) The research proposal and its presentation in the doctoral programme Digital and Analytical Sciences comprises 12 ECTS credits.
- (2) The proposal must outline how the project can address a problem (methodology) and the relevant research questions as well as the work plan (structure, methodology) clearly and comprehensively. Furthermore, it must be made clear that the project will culminate in a conclusive academic thesis. The research proposal must also include a written outline of the candidate's thought process, the planned structure of the paper, a timetable and an initial bibliography.  
A research proposal for a cumulative doctoral thesis must outline how many and at what stage of submission the contributions are concluded and their relation to each respective part.
- (3) Statements from the potential primary and secondary supervisors must be submitted together with the research proposal. The potential primary supervisor must also state whether additional supervisors will be appointed.
- (4) The research proposal must be submitted to the responsible Examinations Office (*Prüfungsreferat*) in agreement with the proposed principal supervisor by the end of the second semester at the latest.
- (5) Before the research proposal is approved, it must be presented and discussed in front of a review board (e.g., departmental colloquium, seminar for doctoral candidates), ideally soon

after the proposal has been submitted. The course leader must ensure that a person responsible for the subject and authorized to teach, appointed by the doctoral committee, attends the presentation and reports to the dean about the presentation. The presentation must be made open to the public. The doctoral candidate should receive suggestions for his/her dissertation concept during the discussion.

- (6) After the research proposal has been approved (according to § 24 para. 4 of the Statute), a supervision agreement must be concluded between the primary supervisor and the doctoral candidate in accordance with the University of Salzburg's guidelines.

## **§ 5 Seminars for doctoral candidates**

- (1) In the doctoral programme Digital and Analytical Sciences, 4-6 doctoral seminars with a total of 8 to 12 ECTS credits must be successfully completed. The supervisor shall stipulate which seminars the doctoral candidate is required to attend, as agreed together with the candidate. The seminars must be relevant to the theses project and provide regular opportunities for candidates to present on the progress of their research.
- (2) Doctoral candidates may only attend one seminar before the research proposal has been approved. The proposal must be approved before candidates can participate in any further seminars.

## **§ 6 Courses**

- (1) In addition to the seminars for doctoral candidates, the doctoral programme Digital and Analytical Sciences requires candidates to pass a total of 8-14 ECTS credits in other courses for doctoral candidates.
- (2) The required courses shall focus on the theory, history and/or subject-specific theories, methods or methodologies of science. They should enable candidates to reflect on the general or subject-specific prerequisites, methods and goals of scientific research.

## **§ 7 Professional development activities**

- (1) In the doctoral programme Digital and Analytical Sciences, candidates must complete professional development activities totalling 8-14 ECTS credits. This includes the following activities:
  - Teaching their own relevant university courses (up to 2 ECTS credits per course; max. 6 ECTS credits).
  - Active participation in international workshops and congresses (incl. paper, lecture, poster, etc.) (up to 6 ECTS credits per active participation)
  - Publications in scientific, peer-reviewed] journals independent of the dissertation topic (up to 6 ECTS credits per publication)
  - Publications in scientific, peer-reviewed journals that are related to the thesis but are not submitted as part of a cumulative thesis (up to 6 ECTS credits per publication).
  - Participation in a summer school or a similar event (up to 4 ECTS credits per participation)
  - Stay at a foreign university, research institution or graduate college for study or research purposes (candidates must provide proof of attendance, for which 1 ECTS credit per month is accredited; max. 6 ECTS credits available)
  - Patents granted as part of the doctoral thesis project (up to 6 ECTS credits per patent)
  - Successful completion of university courses that teach interdisciplinary competences (e.g. project management, scientific ethics, rhetoric, university didactics, foreign languages) (up to 6 ECTS credits).

- Development and provision of research-relevant open-source software on relevant internet platforms (up to 6 ECTS credit points)
  - Independent writing of scientific project proposals (up to 6 ECTS credit points).
- (2) Doctoral candidates who have completed fewer or no professional development activities may acquire the remaining ECTS credits through courses for doctoral candidates.
- (3) The individual professional development activities shall be submitted to the dean for approval and ECTS accreditation. The dean may involve the doctoral committee in this process. Activities will only be approved – mutually with the primary supervisor – if they are relevant to and aid the progression of the doctoral thesis project.

## **§ 8 Doctoral thesis**

(§ 83 Universities Act, § 24 Satzung)

- (1) The doctoral thesis must be written in German, English or another language relevant to the programme content.
- (2) A doctoral thesis consisting of a collection of scientific publications (cumulative doctoral thesis) may be submitted, if it contains a detailed introduction and, where there are multiple authors, a declaration detailing the doctoral candidate's contributions to the thesis, which must be signed by the co-authors.
- (3) Students shall present on the progress of their dissertation to an audience of internal experts at least three times over the course of their programme (e.g., as part of seminars for doctoral candidates or departmental colloquia).
- (4) The supervisory team and the doctoral candidate may submit a list of proposed assessors in accordance with § 24 para. 6 of the Statute. If necessary, separate proposals may also be made.

## **§ 9 Public defence of the dissertation**

(§ 13 and § 18 Statute)

- (1) Candidates must pass all required seminars and courses, professional development activities and a positive grade on their doctoral thesis to apply for admission to the defence of the dissertation.
- (2) The public defence of the dissertation will be conducted by an examination board. The primary supervisor shall chair the session. The two to four further discussion participants are appointed by the dean. In addition to the primary supervisor, the examination board may include a secondary supervisor, as well as the assessors (§ 24 para. 6 Statute). At least one board member cannot be part of the thesis supervisory team. The primary and secondary supervisors and the doctoral candidate may submit a list of potential board members.
- (3) The defence begins with the candidate's presentation of the topic and results of the dissertation project.
- (4) The examination board members then interview the doctoral candidate on the thesis topic – whilst considering the candidates appraisals – with the aim of evaluating the doctoral candidate's mastery of the specialist research field.
- (5) This is followed by an open discussion moderated by the chairperson of the examination board.

## **§ 10 Doctoral committee (*Promotionskommission*)**

(§ 24 Abs. 2 Satzung)

- (1) The doctoral committee (§ 24 para. 2 Statute) is regulated by the Senate's rules of procedure and advises the dean in matters concerning doctoral programmes.
- (2) The doctoral committee must consist of the following persons:
  - the dean
  - the chairperson of the relevant curriculum committee for the doctoral programme Digital and Analytical Sciences.
  - one university lecturer with an authorisation to teach pursuant to § 94 para. 1 subpara. 6 and para. 2 UG from each field of study at the Faculty of *Digital and Analytical Sciences*. The dean shall appoint these members according to proposals made by the individual departments.
  - two students in the doctoral programme at the Faculty of Digital and Analytical Sciences. These members are appointed by the responsible body of the students' legal representation.
- (3) The doctoral committee shall advise the dean on questions concerning admission to doctoral programmes, the approval of a dissertation project, the selection of supervisors, reviewers and the participants in the defence of the dissertation.
- (4) For admissions defined in § 6 para. 4 of the University of Applied Sciences Act (*Fachhochschulgesetz, FHStG*), the doctoral committee shall approve the transcript of set modules for the extended doctoral programme.

## **§ 11 Entry into force**

The curriculum shall enter into force on 1 October 2022.

## **§ 12 Transitional provisions**

- (1) From the time it comes into effect, this curriculum applies to all doctoral students in technical sciences, natural sciences, and philosophy at the Faculty of Natural Sciences from the following dissertation subjects:

Mathematics, Informatics, Applied Geoinformatics, Data Science, Applied Image & Signal Processing, Human Computer Interaction

- (2) All performance records and exams taken so far in the doctoral program are recognized for the further doctoral programme.

---

## **Imprint**

Edited and published by:  
Rector of the Paris Lodron University of Salzburg  
Prof. Dr. Dr. h.c. Hendrik Lehnert  
Editor: Johann Leitner:  
(Both) Kapitelgasse 4-6  
A-5020 Salzburg