

Implementing Provisions for the Doctoral Regulations from 21 November 2018, supplemented on 20 May 2021

Supervisor

The supervisors of doctoral projects may be professors, lecturers, associate professors serving in a temporary capacity ("Privatdozent"), or leaders of junior research groups of the Faculty of Physics and Astronomy. Leaders of junior research groups may only be supervisors if their scientific competence has been confirmed in a generally external scientific assessment procedure, the quality criteria of which had been approved by the Research Committee of the Senate. Additionally, upon formal request submitted to the Faculty Council, leaders of junior research groups whose assessment meets at least the quality criteria approved by the Research Committee, may be appointed as supervisors.

Doctoral candidates are recommended to find a second supervisor in the course of their doctoral studies.

Length of the doctoral thesis

Pursuant to the Doctoral Examination Regulations, the doctoral thesis shall not exceed 100 pages. This includes the table of contents, but not the bibliography. Any appendix with additional information that is not absolutely necessary for the doctoral thesis shall not be included in the assessment. The approval of the Dean is required if the maximum thesis length is exceeded. This exception is applied very restrictively.

Reviewers

- The reviewers of doctoral theses must be professors, lecturers holding a post-doctoral lecturing qualification ("Habilitation"), or leaders of junior research groups.
- There shall be no joint publications with reviewers other than with the supervisor.
- If possible, no two reviewers shall come from the same institute.
- Four reviewers shall be nominated so that the Faculty Council has the possibility to select the required three.

Teaching activities

Teaching serves the purpose of the doctoral candidate's own academic qualification. Therefore, doctoral candidates are expected to teach for a total of 4 hours per week per semester (or equivalent) during their doctorate or to participate in continuing education events on teaching.

Teaching can take place within courses offered in the module catalogue of the Faculty, but also in courses not included herein (e.g. tutorials or preparation courses). In the latter case, an application for recognition must be submitted to the Dean. External doctoral candidates can complete their teaching activities in block courses such as preparation courses, practical course in optics, etc. If this is not possible, in exceptional cases and after approval by the Dean, the required teaching activities can be carried out at another German higher education institution. Such approval must be obtained promptly at the beginning of the doctorate. The supervision of final theses and the supervision of pupils in practical laboratory courses or work experience placements shall not be recognized as teaching activity. Continuing education events for teaching can be corresponding offers of the Faculty, the University (e.g. Service Centre for Higher Education Didactics) or other higher education institutions. Up to half of the required teaching load (2 hours per week per semester) may be credited from continuing education events. Crediting requires the approval of the Dean.

The conversion of full hours into hours per week per semester ("SWS") is based on the Thuringian Regulations on Teaching Responsibilities (*Thüringer Lehrverpflichtungsverordnung*, ThürLLVO) and on different weighting factors depending on the type of course:

- Factor 1 for exercises and tutorials

This is a convenience translation. Only the German version is legally binding. In the case of differences in the wording, interpretation, or meaning of the German and English version, the German version shall prevail.

- Factor 0.5 for continuing education events
- Factor 0.5 for practical courses with normal effort

If you have any questions with regard to the teaching activities, please contact your supervisor.

Supplementary subject

According to the sample supervision agreement for the doctorate at the Faculty of Physics and Astronomy, the doctoral candidate shall also acquire in-depth knowledge in a subject area that does not directly belong to their research area (in the following referred to as “supplementary subject”).

The supplementary subject is usually a lecture offered at the Faculty. It should complement the topic of the doctorate, but be sufficiently different from it, i.e. as a rule it **shall not belong to the same subject area**. Courses already credited in the *Diplom*, Bachelor’s or Master’s degree certificate shall not be permitted as supplementary subjects. In the case that a doctoral project particularly benefits from lectures of other faculties, these can be recommended as a supplementary subject.

The supplementary subject shall be chosen by mutual agreement between the supervisor and the doctoral candidate. The decision on whether to accept the supplementary subject shall lie with the Dean, who may request to be given the reasons for the choice by the supervisor and the doctoral candidate and/or a statement from a third professor. The doctoral candidate may ask the Faculty Council to take a different decision.

The knowledge acquired in the supplementary subject shall be examined in a **colloquium**. This shall take place within 24 months after acceptance as a doctoral candidate, but at the latest before the doctoral examination procedure is opened. The supplementary subject must have been included in the supervision agreement and have been accepted by the Dean **before** the colloquium.

The colloquium in the supplementary subject is usually not open to the public and shall be completed with a professor and the supervisor as an assessor. The colloquium shall take at least 30 minutes and no more than one hour. In terms of content, the doctoral candidate shall demonstrate knowledge of the subject matter of a lecture to the extent of 4 hours per week per semester.

The colloquium is not graded; however, the minutes of the colloquium shall serve as proof of the knowledge demonstrated and must be presented when the doctoral examination procedure is opened.

Thesis defence

The Doctoral Committee shall, as a rule, consist of professors representing different specializations within the Faculty. It is therefore advisable to structure the presentation of the doctoral thesis during the thesis defence in such a way that it makes clear how the topic of the doctoral thesis project is embedded in the general context of modern physics research and also highlights the specialized contributions of the doctoral candidate. The “rule of thirds” (i.e. one third of the presentation is comprehensible for all faculty members, one third requires in-depth knowledge, one third is for specialists) can be used as a guide here.