## Doctoral thesis

## **Institute of Physics**

It takes about 1.5-2 months from the submission of the doctoral thesis to the defense.

The basis for applying for a doctoral degree is the rules for doctoral studies.

## Before submitting the work:

1. When there is need to add or change supervisors, the doctoral student shall submit a corresponding application to the Council of the Institute. The change must be entered in the study information system (SIS) by one of the institute's secretaries.

2. The doctoral student must have fully completed his / her curriculum (except for research points). The fulfillment of the curriculum can be checked in the study information system. If a change in the individual plan is required, an application must be submitted to the head of the specialty / programme manager of the respective curriculum.

3. The doctoral student ensures that all his / her publications are entered and validated in ETIS with appropriate references and acknowledgments.

4. If the applicant of doctoral degree does not have a valid student relationship with the university, he / she must register as an external student; this can be done in the dean's office.

## Official submission:

At least eight workdays before the regular meeting of the Council of the Institute, the doctoral candidate shall submit the following documents to the Council (Executive Secretary of the Institute):

1. An application for the defense of a dissertation stating the exact title of the doctoral degree applied for.

For example: Please send my dissertation "Title in the original language" for defense. I am applying for a doctoral degree in philosophy (physics).

2. The text of the dissertation which meets the requirements for manuscripts of the University of Tartu publishing house.

3. Curriculum Vitae, which contains a list of scientific publications and patents related to or included in the dissertation.

4. Written assessment (s) of the supervisor (s) on the originality of the dissertation, the contribution of the doctoral candidate and the compliance of the dissertation with the substantive and formal requirements.

5. A short summary in Estonian and English with a popular scientific purpose and intended for a wide readership (up to 2000 characters). They are used on UT websites and at Universitas Tartuensis to inform about the defense, as well as elsewhere in the media (Innovator, etc.).

What's next:

1. The documents are examined by the university and received an evaluation from the UT Academic Secretary within a week.

2. In parallel with the examination by the university, the members of the council of the institute also get acquainted with the doctoral thesis.

3. Before being allowed to be defended by the Council of the Institute, the doctoral student shall give a public presentation on the topic of the dissertation at the seminar of the Institute / Laboratory. The seminar will also be announced in the institute's internal lists at least one week before the seminar.

4. Based on the recommendations received at the seminar, the doctoral student makes changes and corrections to the dissertation if necessary.

5. If the dissertation has been prepared on the basis of articles published as a review article, the doctoral student must request permission from all publishers who have published the articles to publish the articles in the printed and electronic version of the dissertation. All these permits must be in the dissertation by the date of submission of the dissertation to the council at the latest.

Referral for defense of the work in the Council of the Institute:

1. At the time of referral, it must be clear who the opponents of the work are and when they can come to the defense. Certainly, one opponent must be from abroad and it is recommended to find another opponent who may be from Estonia.

2. The supervisor of the doctoral student shall communicate with the opponents, who shall submit their data to the Executive Secretary of the Institute:

opponent's name (by passport), date of birth / personal identification code, home postal address; position, institution, postal address of the institution;

bank details: name and official address of the bank, SWIFT code and bank account number.

3. The Board of the Institute shall recommend to the Board of Defense that it take action on the defense.

4. The Defense Council shall decide on the admission of the work for defense. In case of a positive decision, the Defense Council approves the opponents of the doctoral thesis and fixes the date of the defense, if necessary additional members of the Council and, if necessary, the chairman of the defense meeting (if it is not the chairman of the Defense Council).

Publishing:

1. If the thesis is aimed at defense, the doctoral student makes the appropriate additions on the back of the title page of the thesis and concludes an agreement with the UT publishing house and the university for printing the thesis. To this end, the doctoral student submits the following documents to the UT Publishing House (at least 7 weeks before the defense date):

1) Dissertation (pdf file).

2) An extract from the minutes of the meeting of the Defense Council on the assignment of the work to the defense (prepared by the Secretary of the Defense Council).

3) Letter of guarantee with confirmation of circulation and financing (prepared by the executive secretary of the institute). The number of copies of each specific dissertation to be printed is decided by the Director of the Institute of Physics.

4) Popular scientific content summaries in Estonian and English (as a file).

2. The publisher checks that their computer system reads all the graphs, drawings, formulas, etc. and then sends the processed file to the doctoral student for review. If the doctoral student is satisfied with the result, the work will be published. The publishing house takes about 2 weeks, if necessary (with the prior agreement of the doctoral student) the dissertation will be printed faster. The doctoral student should agree on the printing schedule in time with the publisher, as printing may fall during the holidays.

The dissertation is ready to be printed:

1. When the doctoral thesis is completed in print, copies shall be brought in a box to the office of the Executive Secretary of the Institute of Physics and distributed as follows:

1 for each member of the Defense Council (the number depends on the Defense Council and the number of its members)

Physicum Library (1 piece)

To the Institute of Physics (1 piece)

official copies of the opponents (one for each opponent).

2. The doctoral student shall take care of the delivery of the official copies of the opponents. They shall be sent by ordinary mail to the address of the authority given by the opponents. In addition, a deadline for submitting a written opinion is agreed with the opponent and an agency agreement is concluded, and the conditions for compensation for accommodation and travel expenses are agreed.

3. The remaining copies of the doctoral thesis remain with the doctoral student; It is good practice to distribute printed copies of the dissertation to the defense audience.

4. The doctoral student does not have to send the file to the library or take the printed copies there, the publisher does. However, the UT requirement that the dissertation must be available on paper and electronically on the University Library website at least two weeks before the defense must be strictly adhered to, unless the defense of the dissertation has been declared closed and / or the publication of the dissertation restricted;

Opponents' fees, accommodation and tickets:

1. An opposition fee and reasonable travel and accommodation expenses shall be paid on the basis of agency agreements concluded with opponents.

2. Opponents' tickets and accommodation will be booked either by the supervisor or by the doctoral student. It is most sensible to use the university's "Travel Booking Form" (under the information systems on the university's intranet), then you will not be asked to send / send boarding passes and original tickets and bank statements.

Protection:

1. Protection may take place only if:

1) Degree applicant;

2) At least one opponent;

3) At least 6 decision-making members of the Defense Council with a doctoral degree.

2. The course of the Defense Council:

1) Opening remarks by the Chairman of the Defense Council.

2) A presentation by the Secretary of the Defense Council, where he or she introduces the academic life of the degree applicant and confirms that the prerequisites for the defense and the formal requirements of the defense meeting have been met.

3) Presentation of the degree applicant to introduce the main results of the work (up to 25 min).

4) Questions on the presentation.

5) Speeches by opponents and academic discussion of the degree applicant with opponents.

6) General academic debate with the participation of members of the supervisory board and other attendees. It is good practice for at least three questions to be asked by members of the board. This is often done by additional members of the Board, who are appointed to the Defense Board precisely because they are experts in the subject matter under defense.

7) If desired, a short speech by the supervisor (up to 1 min).

8) Closed part, in which only members of the Defense Council, Secretary of the Defense Council, opponents and supervisor (s) participate. Only members of the Supervisory Board with a doctoral degree have the right to vote, except for the supervisor (s) of the doctoral thesis. The council decides whether or not to award a degree.

9) Notification of the decision.

10) Defender's closing remarks.

Receipt of the diploma:

1. Doctoral diplomas are awarded once a year in a solemn ceremony on 1 December in the university hall. If the diploma is to be obtained on 1 December this year, the defense should take place no later than 23 November of the same year, as appeals can be lodged within 1 week of the defense. Diplomas in defense completed at the end of November will be awarded on 1 December of the following year. The university will send invitations to all doctors who have defended themselves during the year, either by internal mail of the university (if the recent doctor is an employee of the university) or to the contact details shown in the CV.

2. If for some reason you are not able to participate in the promotion on December 1, the diploma will be handed out by a study management specialist of the Department of Education (Jakobi 1, church, entrance by the yard).

3. If you need to prove that you have defended your doctoral degree before you receive your diploma, the study certificate specialist (Jakobi 1, church, entrance from the courtyard) will provide the relevant certificate.