

## **Dean's Directive 2D/2019**

### **ON THE IMPLEMENTATION OF THE DOCTORAL STUDY PROGRAMME**

**with implemented Amendment No. 1 from 9. 8. 2019, No. 2 from 12. 7. 2021,  
No. 3 from 16. 8. 2021, No. 4 from 1. 9. 2022 and No. 5 from 1. 7. 2024**

This Directive, in accordance with the internal regulation "Study and Examination Regulations of the University of West Bohemia" dated 13 July 2017, specifies the field-specific details of the doctoral study programme.

#### **Article 1 General provisions**

- (1) In a doctoral study programme work is carried out according to an individual study plan, the template of which is in Annex 1.
- (2) A student of a doctoral study programme studying in full-time form shall be present at the workplace at which he or she is engaged in teaching and research activities, to the extent proposed by the supervisor and approved by the head of the workplace.
- (3) The scope of teaching and research activities is proposed by the supervisor and approved by the head of the department. The recommended scope of teaching for full-time students is 2 teaching hours/week per semester for first-year students and 4 teaching hours/week per semester for upper-year students.
- (4) Dates of registration for the first year of study are set out in the decision on admission; registration is organized by the Study Office. Registration for the following years of study is carried out according to the Dean's decision regarding continuation of study following the student's annual evaluation.
- (5) An officially confirmed extract of inspection results from IS / STAG is considered to be a study report.
- (6) Completion of theoretical and professional courses is proved by a record of the course examination - template in Annex No. 2. The record of the course examinations must be submitted by the student to the Study Office within three working days of the examination being taken.
- (7) Annex No. 3 is for the annual evaluation of the student. The annual evaluation is prepared by the supervisor for the previous academic year and submitted to the Study Office no later than 15 working days after the end of the academic year.
- (8) Students of the doctoral study programme regularly participate in the Electrical Engineering and Informatics Conference organized by the FEL UWB, which serves to present and evaluate the state of scientific research activities in doctoral study programmes. Active participation is compulsory for second and third year students, while participation is recommended for students in other years.
- (9) The highest number of simultaneously supervised doctoral students is eight. The Dean may decide, in exceptional cases, to increase the number of simultaneously supervised doctoral students under the care of one supervisor, on the basis of a request from the supervisor submitted to the

Study Office and discussed by the FEE Doctoral Study Board. The request template is in Appendix 4. The FEE Doctoral Study Board, when discussing such an increase, will take into account the specifics of the topics supervised, the results of the doctoral students supervised by this supervisor, the involvement of consulting specialists, supervision of foreign doctoral students, etc. The involvement of consulting specialists is recommended if the number of simultaneously supervised doctoral students is five or more.

## **Article 2**

### **Requirements for study on a doctoral study programme**

- (1) Doctoral programme students choose 3 courses (number of courses excluding foreign language). The supervisor may be the guarantor of only one of the enrolled courses.
- (2) English language is the obligatory language on the doctoral study programme. Language skills are usually demonstrated through an English language examination at FEE or the UWB Institute of Applied Language Studies. Other possibilities of proving language skills must be approved by the FEE Doctoral Study Board.
- (3) As part of the doctoral studies, the student is obliged to publish the original results of his/her dissertation publicly. All of the following requirements must be met:
  - a) Publications in a journal with an impact factor - each student of the doctoral study programme must have published at least one publication in a journal with an impact factor according to Web of Science when applying to defend his/her dissertation, provided the following conditions are met:
    - i. the topic of the published article must be consistent with the topic of the Dissertation,
    - ii. the student of the doctoral study programme is the main author of the published article (the student is the first listed author or provides a declaration from the author's team that he/she is the main author of the publication - see template in Annex 12),
    - iii. the article must be published or in a confirmed "accepted for publication" status and/or be the originator or co-inventor of a patent related to the dissertation topic.
  - b) Publications in conference proceedings - each student of the doctoral programme must have published at least 3 articles in the proceedings of international conferences, which are conducted by in the Web of Science, Scopus, IEEE or ERIH databases under the following conditions:
    - i. the topic of the published article must be consistent with the topic of the Dissertation,
    - ii. the student of the doctoral study programme is the main author of the published article (the student is the first listed author or provides a declaration from the author's team that he/she is the main author of the publication - see template in Annex 12),and/or be a co-author of at least one other publication in a journal with an impact factor (excluding publications with a lead author requirement under this article) and is also the author or co-author of at least one conference paper that the student has personally presented at an international conference.
  - c) Other publications - the number of other publications is not limited, their quality and quantity is taken into account in the overall assessment during the state doctoral examination and defence of the Dissertation. "
- (4) The international dimension of study is demonstrated by the doctoral student in the following way:
  - a) a stay abroad of a cumulative duration of at least three months (the minimum length of a repeated stay is one month) at a university or research centre or at a workplace whose professional activities are in line with the topic of the dissertation, or

- b) demonstrable work in an international research team for a minimum of 6 months. Evidence of work in an international research team is demonstrated, e.g. travel orders, research reports with international partners, etc.
- (5) As part of their doctoral studies, students are encouraged to attend the FEL<sup>1</sup> Doctoral School, which is held every academic year.
- (6) In exceptional cases, the Dean may, following a proposal from the FEE Doctoral Study Board, decide on another manner of meeting or proving the requirements set in this article; a request for approval of another method of fulfilling or proving these requirements is set out in Annex 4.

### **Article 3**

#### **Application for the State doctoral examination**

- (1) Application for the State doctoral examination (hereinafter referred to as SDE) must be submitted by the student to the Study Office. The application form is in Annex 5.
- (2) The application for SDE must be signed by the student and the supervisor. Together with the application for SDE, students must attach the following:
  - a. the Doctoral thesis – template in Annex 6,
  - b. summary of publishing activities exported from OBD and certified by the supervisor.
 The supervisor must attach the following to the application for SDE:
  - a. a proposal for the composition of the Examination Board for the State Doctoral Examination and a proposal for an opponent (or opponents) for the Doctoral thesis – template in Annex 7, and
  - b. the supervisor's report on the student's scientific activities – template in Annex 8.
- (3) The Dissertation thesis overview is a concise and clear document with a recommended length of 30 to 40 pages that includes the following elements:
  - a. an analysis of the current state surrounding the issues considered in the Dissertation,
  - b. the Dissertation objectives,
  - c. a description of the results achieved by the student demonstrating his/her abilities to successfully complete the Dissertation,
  - d. directions for further investigation during completion of the Dissertation, including a proposal for the methodology,
  - e. a timetable for work on the Dissertation, and
  - f. a list of the student's publications related to the content and topic of the Dissertation.
- (4) The Study Office will check the completeness of the application and its annexes. In case of deficiencies, supplementary documents will be requested. Otherwise, it is submitted to the study programme guarantor and the FEL Doctoral Study Board for discussion.
- (5) The study programme guarantor assesses the completeness of the requirements of the Dissertation proposal.
- (6) The FEL Doctoral Study Board will discuss the proposal of the SDE committee and the proposal of the opponent(s). In case of a positive recommendation of the Board, the Dean, on the proposal of the Board, appoints the examination committee for the state doctoral examination and the opponent (or opponents) for the assessment of the Doctoral thesis.
- (7) After the appointment of the opponent(s), the Study Office will provide the opponent with the dissertation thesis overview for the purpose of preparing the report. A template for the report is attached as Annex 9. In particular, the opponent's report shall focus on the evaluation of
  - a. relevance and dissertability of the dissertation topic,
  - b. the choice of dissertation objectives,

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<sup>1</sup> The FEL Doctoral School is a series of seminars in which students gain a basic overview of academic work and the necessary knowledge for creative or research activities and university pedagogy.

- c. the chosen research or development methodologies,
- d. the professional results achieved in relation to the dissertation,
- e. the realism of the timetable for work on the dissertation,
- f. the quality of publications and other activities.

#### **Article 4**

##### **Rules for the composition of the Examination Board for the State doctoral examination**

- (1) The Examination Board for the State doctoral examination (SDE Board) consists of at least seven members.
- (2) The SDE Board members include the opponent/s and other persons who must be selected from a list of experts approved by the FEE Scientific Board for examining at SDE.
- (3) All members of the SDE Board must be active in the same field or a related field in which the Doctoral study programme is concentrated.
- (4) Members of the SDE Board must be professors, associate professors, Doctor of Science or prominent experts from the appropriate sphere.
- (5) One member of the SDE Board must be a member of the FEE Doctoral Study Board (usually the chair or vice-chair).
- (6) A maximum of three members of the SDE Board may be from the student's training workplace. At least two members of SDE Board must be from outside UWB FEE, of which at least one member must be outside the UWB academic community.
- (7) The supervisor, the consulting specialist, a former supervisor or a former consulting specialist may not be members of the SDE Board.

#### **Article 5**

##### **Course of the State doctoral examination**

- (1) During SDE, the SDE committee are assessing:
  - a. the knowledge and skills required of the doctoral student for successful completion of these studies,
  - b. completion of the first stage of the individual study plan,
  - c. the thesis and the objectives of the dissertation, based on the opinion of the opponent in terms of dissertability, timeliness, professional level, stage of development and time feasibility,
  - d. the quality and quantity of the student's publication outputs and other activities.
- (2) The procedure of SDE is led by the chair; in his/her absence, by the vice-chair of the SDE board.
- (3) The general course of SDE is as follows:
  - a. opening the session by the chair or vice-chair of the SDE board,
  - b. introduction of the student by the supervisor,
  - c. dissertation thesis defense - the student states the title and objectives of the dissertation, briefly introduces the current state of knowledge on the topic, the achieved results of his/her work, states the directions and methods of further research leading to the completion of the dissertation and defines the timeframe for completion (usually 15 min),
  - d. reading of the report by the opponent or an authorised member of the committee,
  - e. discussion of the thesis - in this part the questions of the opponent are answered, then the questions of the members of the SDE committee (usually 30 minutes, the aim of the discussion is to assess the professional and theoretical knowledge, including the mastery of methods of independent scientific work and the application of new knowledge),

- f. verification of knowledge - the committee members ask questions aimed at verifying knowledge in the studied programme (usually 15 min, the aim of this part is to assess professional and theoretical knowledge).
  - g. non-public part of the SDE board's session including a public vote on the SDE result; completion of the protocol,
  - h. public part of the SDE board session – familiarization of the student with the result of the SDE and the protocol by the SDE board chair,
  - i. termination of the session and archiving of the original protocol in the Study Office by the chair or vice-chair of the SDE board,
  - j. delivery of a copy of the minutes of the meeting to the student and supervisor by the chair or vice-chair of the SDE Board.
- (4) In the non-public part of the session involving the SDE board, the current course of the SDE is evaluated. In particular, the SDE board considers the following points:
- a. whether the doctoral student has a sufficient level of knowledge and skills for successfully completing the doctoral study programme,
  - b. whether the stated objectives of the dissertation are dissertable, fulfill the legal requirements for a dissertation and belong to the field of the doctoral study programme,
  - c. whether the submitted timetable for preparation of the Dissertation is realistic and thus a prerequisite for timely and successful completion of studies, and
  - d. whether the present publication and professional activity of the doctoral student is at the appropriate level.
- (5) A recommendation to update the individual study plan or to modify the objectives of the Dissertation may be part of the evaluation of the SDE board.

## **Article 6**

### **Application for Dissertation defence**

- (1) An application for defence of a Dissertation should be submitted by the student to the Study Office; the application form template is in Annex 10.
- (2) The application for the dissertation defense must be signed by the student and the supervisor. The student attaches to the application for the dissertation defense:
- a. dissertation thesis in electronic form (one file in PDF format sent by email to the address of the study coordinator before submitting printed documents) - template in Annex No. 11, the paper form of the dissertation is not submitted,
  - b. a structured professional CV,
  - c. a list of all published and unpublished works, all presentations at scientific meetings confirmed by the supervisor, and in a separate paragraph, activities from the course of study.

The supervisor attaches to the application for the dissertation defense:

- a. statement of the supervisor in the sense of recommendation or non-recommendation of the dissertation for the defense (part of the application for the dissertation defense),
  - b. proposal of the committee for the defense of the dissertation and proposal of the opponents of the dissertation - template in Annex No. 13.
- (3) The recommended number of pages for a Dissertation is 80 to 100; the Dissertation must include the following:
- a. introduction with a rationale for the Dissertation topic,
  - b. affidavit on the preservation of accepted practice in scientific work,
  - c. theoretical background, including the current state of knowledge in Czech and foreign contexts,
  - d. the Dissertation objectives and working hypotheses,

- e. scientific methods used,
  - f. the results of the Dissertation, including the original results and the student's published results from the research or the results obtained for publication,
  - g. contribution made by the Dissertation,
  - h. recommendations for any further work in the research,
  - i. a conclusion summarizing the main results of the research,
  - j. summary (resume) of the dissertation in Czech and English,
  - k. bibliography,
  - l. list of published papers,
  - m. a statement from the supervisor (e.g. a project supervisor) about the student's authorship contribution if the dissertation was written as part of a research project carried out by a team.
- (4) The Study Office will check the completeness of the application and its annexes. In case of deficiencies, supplementary documents will be requested. Otherwise, it is submitted to the study programme guarantor and the FEL Doctoral Study Board for discussion.
  - (5) The study programme guarantor assesses if the requirements of the Dissertation have been met.
  - (6) The FEL Doctoral Study Board will discuss the proposal of the dissertation defence committee and the proposal of the opponents. In the case of the recommendation of the FEL Doctoral Study Board, the Dean, appoints the dissertation defence committee, on the proposal of the Board.
  - (7) The Dean's decision on the Dissertation defence committee and the opponents for assessment of the Dissertation is delivered to the chairperson of the FEE Doctoral Study Board and the supervisor.
  - (8) Upon the appointment of the opponents, the Study Office provides the opponents with a copy of the Dissertation for preparation of their assessment. The appropriate template is in Annex 14.
  - (9) The study program guarantor carries out a formal check of the assessments, as to whether they contain the particulars pursuant to Article 107 (2) of the UWB Study and Examination Regulations. If deficiencies are found, the evaluation is returned to the opponent for revision. The opponent must return the revised evaluation within 15 days of the date of receipt of the revision request.

## **Article 6a**

### **Inspection of the assessment of the similarity of the qualification work**

- (1) After the submission of the qualification thesis, the similarity of the qualification thesis is assessed by the Theses.cz system.
- (2) The supervisor, Vice-Dean for Science, and the Dean have access to the assessment results. Access to the assessment results is via an Orion account on the UWB Portal - portal.zcu.cz, Study tab - IS / STAG - Plagiarism Control menu.
- (3) Once the qualification work has been assessed by the system, the supervisor shall evaluate the similarity of the qualification work and set the similarity assessment flag. If there is no doubt about the uniqueness of the qualification work, the supervisor shall set the flag "Assessed." If there is any doubt about the similarity of the qualification work, the supervisor shall discuss this with the Vice-Dean for Science and then sets the flag "Assessed - suspicious match."
- (4) In addition to the supervisor, the similarity assessment may be evaluated and set by the Vice-Dean for Science.
- (5) If the thesis is marked with the flag "Assessed - suspicious match," the supervisor does not recommend it for defence and informs the Vice-Dean for Science about this. The Vice-Dean for Science shall submit a request to the Dean to initiate disciplinary proceedings. Pending the final decision in the disciplinary proceedings, the defence process shall be suspended.
- (6) Once the disciplinary proceedings have been completed, have become effective, and the proceedings have not confirmed plagiarism, the supervisor shall mark the qualification work in the

system with the flag "Assessed." If plagiarism is documented in the disciplinary proceedings, the flag "Assessed - suspicious match" remains set.

## **Article 7**

### **Rules for the choice of opponents giving opinions of the Dissertation**

- (1) The Dissertation must have at least two opponents.
- (2) An opponent of a Dissertation may be a professor or an associate professor. In exceptional cases, an opponent may also be a prominent expert approved by the FEE Doctoral Study Board. At least two opponents must be from outside the UWB academic community. At least two opponents must be professors or associate professors.
- (3) If a specialist from the applied sphere is proposed as an opponent, there must be some justification for the choice. The Dean may request his/her CV or a list of publications or other professional activities.

## **Article 8**

### **Rules for the composition of the Board for defence of the Dissertation**

- (1) The Board for Defence of the Dissertation (hereinafter referred to as "the board") has at least seven members and eleven members at the most.
- (2) The members of the board are opponents and other persons who must be selected from the list of Dissertation defence experts approved by the FEE Scientific Board.
- (3) All members of the board must be active in the field or related fields of the Doctoral study programme.
- (4) The board consists of the chair, the vice-chair and other members. The chair or vice-chair must be a member of the UWB academic community.
- (5) Other members of the board are professors, associate professors and specialists from the applied sphere selected from a list of members for the Dissertation defence, which is approved by the FEE Scientific Board.
- (6) At least half of the board members must be from outside the UWB academic community.
- (7) At least half of the board members must be professors or associate professors.
- (8) If a specialist from the applied sphere is an opponent, there must be justification for the choice of this specialist. The Dean may request his/her CV or list of publications or other professional activities.
- (9) The supervisor, the consulting specialist, a former supervisor or a former consulting specialist may not be a member of the board.

## **Article 9**

### **Course of the Dissertation defence**

- (1) The recommended length of the Dissertation defence is usually 90 minutes; 20 minutes is normally intended for presentation of the Dissertation results by the student.
- (2) In the case of contradictory and negative opinions, it is necessary to provide detailed justification of a successfully defended Dissertation in the minutes of the defence.

## **Article 10**

### **Final provisions**

- (1) This directive was discussed by the FEE Doctoral Study Board on 24 April 2019.
- (2) This directive enters into force on the date of signature.
- (3) The course of study in the doctoral study programme is graphically represented at <https://fel.zcu.cz/procesy/>.
- (4) The previous provisions governing the scope of this directive are replaced by this new directive on the date it comes into force.
- (5) The directive annexes (templates):
  - Annex 1 – Individual Study Plan
  - Annex 2 – Registration of the Course Examination
  - Annex 3 – Annual report
  - Annex 4 – Application form
  - Annex 5 – Application for the State Doctoral Examination
  - Annex 6 – Doctoral thesis
  - Annex 7 – Proposal of the Examination Board of the State Doctoral Examination
  - Annex 8 – Supervisor’s Report on the student’s scientific activities
  - Annex 9 – Assessment of the Doctoral Thesis
  - Annex 10 – Application for Defence of the Dissertation
  - Annex 11 – Dissertation
  - Annex 12 – Author Collective Declaration Template
  - Annex 13 – Proposal for the Board for Defence of the Dissertation
  - Annex 14 – Assessment of the Dissertation

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