



**FREDERICK UNIVERSITY**

## **Doctoral Studies Regulation**

Year 2020 - 2021

## **A. Doctoral Level Programs**

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The highest academic degree in Frederick University is the doctor of Philosophy (PhD). The doctorate is awarded upon the completion of a program of advanced study, principally at the University, and the performance of significant original and innovative research work.

### **A.1 Doctoral Program Regulations:**

The operation and program specific regulations for each Doctoral program are described in the “Doctoral Program Regulations”. The “Doctoral Program Regulations” are in accordance with the rules and procedures described in the “Postgraduate Regulations for Doctoral Programs” of the University.

The “Doctoral Program Regulations” must be provided to the students of each Doctoral program at the beginning of their studies.

The “Doctoral Program Regulations” must be written in the language of instruction of the program.

The “Doctoral Program Regulations” must include the following:

- a) General and specific provisions for the form and operation of the Program committees and bodies.
- b) Normal duration of the program as well as the minimum and maximum study periods.
- c) Entry requirements and admittance procedures.
- d) Structure of the program, including all educational activities required for the completion of the program, with the corresponding ECTS credit allocation and the distribution of courses in semesters.
- e) Structure and assessment procedure for the Doctoral level Dissertation.

## **B. Doctoral Program Bodies:**

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### **B.1 Doctoral Program Committee:**

Each Doctoral program is overseen by the Doctoral Program Committee. This is a three-member committee appointed by the Council of the Department. One of the three members is appointed by the Council of the Department as the chairman of the committee who also acts as the Coordinator of the doctoral program. The tenure for the members of the Doctoral Program Committee is three years.

The Doctoral Program Committee has the overall responsibility of the quality assurance of the doctoral program. The Doctoral Program Committee:

- a) suggests to the Council of the Department changes concerning the regulations for the program,
- b) oversees the implementation of the regulations for the program,
- c) suggests to the Council of the Department the number of new admissions to the doctoral program,
- d) evaluates the applicants for admission to the doctoral program, and recommends to the Council of the Department, the candidates to be admitted,
- e) suggests to the Council of the Department the academic advisors to doctoral students,
- f) approves transfer credits or exemptions for new program students,
- g) suggests to the Council of the Department the Research Advisor, the members of the Research Advisory Committee and the members of the Doctoral Dissertation Evaluation Committee for each student of the program, and
- h) forwards to the Council of the Department the list of the doctoral students who have successfully completed the requirements of the program, and suggest the award of the PhD degree to successful doctoral students.

## **B.2 Academic/Research Advisor:**

Upon admission to the doctoral program, a student is assigned an Academic Advisor by the Council of the Department. The academic advisor is a faculty member of the Department. The academic advisor advises the student on his/her academic plan, prior to the appointment of the Research Advisor.

The Research Advisor oversees the research work of the student and provides him/her with the appropriate guidance. The Research Advisor acts as the student permanent academic advisor. The Research Advisor can be the same person as the academic advisor. The Research Advisor must be appointed before the beginning of the semester that the student will register for the Qualifying Exam.

The Research Advisor must be a faculty member with research expertise in the same area of research as the area of the dissertation of the student.

The Research Advisor must be a faculty member of the University for at least one year, and must hold the relevant PhD degree for at least three years. Furthermore, a faculty member of the University can act as a Research Advisor for at most five students at a time.

The Research Advisor is proposed by the Doctoral Program Committee in consultation with the student and approved by the Council of the Department.

In the case that the Research Advisor leaves the University, he/she can continue acting as the student's Research Advisor. In this case another faculty member is assigned by the Doctoral Program Committee as a research co-advisor.

## **B.3 Research Advisory Committee:**

Each student is assigned a Research Advisory Committee by the Council of the Department after a proposal by the Doctoral Program Committee. This is a three-member committee that approves the research proposal of the student and oversees the student's progress throughout his/her doctoral studies. The Research Advisory Committee consists of the student's Research Advisor, who acts as the chair of the

committee, and two other members with extensive knowledge in the research area of the dissertation of the student. One of the members of this committee can be a faculty member of another university or research institution, or a qualified PhD holder. At least one of the three members of the committee must have successfully supervised PhD students in the past. If the Research Advisor is at the rank of a lecturer or assistant professor, at least one of the Research Advisory Committee members from the Department must be at the rank of associate professor or professor.

The Research Advisory Committee must be appointed before the beginning of the semester that the student will register for the Qualifying Exam.

#### **B.4 Doctoral Dissertation Evaluation Committee:**

The Doctoral Dissertation Evaluation Committee evaluates the dissertation of the student, and if successful, reports to the Doctoral Program Committee for the recommendation of the PhD award. The Doctoral Dissertation Evaluation Committee must be formed at the beginning of the final semester of the student, and at least two months before the submission of the doctoral dissertation of the student.

The Doctoral Dissertation Evaluation Committee is a five-member committee proposed by the Doctoral Program Committee in consultation with the student's Research Advisor, and approved by the Senate.

The Doctoral Dissertation Evaluation Committee must be comprised of:

- a) two members from the faculty of the Department, including the student's research advisor,
- b) two external members from other universities, research institutions. The external members must be PhD holders with extensive knowledge in the research area of the dissertation. At least one of the two external members must be from the academia at the rank of associate professor or professor. Both of the external members must have supervised doctoral students who have successfully completed their PhD studies.

- c) a faculty member of the university or another university, with extensive knowledge in the research area of the dissertation of the student, who has successfully supervised PhD students in the past.

The chairman of the committee is a faculty member of the Department, other than the student's Research Advisor. The three members of the student's Research Advisory Committee can be members of the Doctoral Dissertation Evaluation Committee.

## **C. Admission Requirements and Procedures:**

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### **C.1 Admission to the Program:**

Admission to the doctoral program is done after the announcement of doctoral positions by the Department, followed by an application by the interested applicant. Eligible applicants must hold a university Master's level degree granted by an institution recognized in the country where it operates. Applicants who do not hold their Master's degree at the time of application, but will hold such a degree before the commencement of the doctoral program, are also eligible to apply but must submit a letter from their University's Registrar verifying that they are indeed eligible to graduate. The decision on their admission does not become official until the degree has been successfully produced.

Each application for admission should include:

- A completed application form.
- A Curriculum Vitae indicating the student's education, academic and research experience, any publications, awards, etc.
- A Research Statement. Candidates with prior graduate studies are required to submit a brief research statement (up to 600 words) stating the area in which they are interested in conducting research.
- At least two letters of recommendation from academic or professional advisors.

- Certified copies of all degrees and transcripts.
- Copies of any other supporting material, such as exams, honors, awards, etc.
- Proof of language proficiency,

The application material must be submitted in the language of instruction of the Program.

## **C.2 Admission's Evaluation Procedure:**

All applications for admission are evaluated by the Doctoral Program Committee. The evaluation process includes a personal interview of the applicant by the Doctoral Program Committee.

The criteria for the evaluation of the candidates are the following:

- Academic background
- Research background
- Recommendation letters
- Additional qualifications
- Personal interview.

After completing the evaluation process, the Doctoral Program Committee submits to the Council of the Department a Program Admission Evaluation Report on its decision. This report includes a justified suggestion of the Committee on the acceptance/rejection of the candidate's application, possible conditions for admission, transfer credits, and research area. If appropriate, the Committee may suggest in this report the Research Advisor and the members of the Research Advisory Committee.

## **D. Program Requirements:**

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The doctoral program is based on the European Credit Transfer and Accumulation System (ECTS). To be awarded the PhD degree, the student must complete at least 180 ECTS credits of doctoral level coursework, research work, and seminar attendance. The normal duration of the program is three years.

The requirements for the successful completion of a doctoral program and the award of the PhD degree are the following:

- a) Successful completion of doctoral level coursework.
- b) Passing the PhD qualifying exam.
- c) Approval of the doctoral dissertation proposal.
- d) Submission of a doctoral dissertation.
- e) Successful defense of the doctoral dissertation.
- f) Participation to graduate level seminars including research talks and conferences.
- g) Successful submission of at least two scientific papers. At least one paper must be published or must be accepted for publication in refereed international journals. At least one paper must be presented in a refereed conference and published in the conference proceedings.

### **D.1 Doctoral Level Coursework:**

Doctoral students need to attend doctoral level courses of 20 to 45 ECTS credits. These courses aim in the enhancement of the student's skills in conducting research in general, and in the enhancement of the student's knowledge in the specific area of his/her thesis.



## **D.2 Transfer Credits:**

Transfer credits for the Doctoral Level Coursework can only be granted in cases where the student has a significant formal prior doctoral level work that satisfies the aims of the Doctoral Level Coursework. The maximum number of transfer credits for the Doctoral Level Coursework is thirty (30) ECTS.

## **D.3 Course Grading:**

Courses in the Doctoral Level Coursework are graded as either “Pass” or “Fail”. A course can also be graded as “Incomplete”, when the student is not able, for a justified reason, to complete the requirements of the course on time. In such a case the student must complete the requirements of the course before the end of the semester that follows the semester on which he was graded with an “Incomplete” grade. If more time is required by the student to satisfy the requirements of a course, then the Research Advisor can grade the student with a “Satisfactory Progress – SP” grade. In this case, the student must register for this course again.

## **D.4 PhD Qualifying Exam:**

The purpose of the PhD Qualifying Exam is to examine the student’s potential for success in the doctoral program. It determines if the student has the required background knowledge, as well as specialized knowledge to conduct research in his dissertation area and to cope with the requirements of the doctoral program.

### **D.4.1 Content of Qualifying Exam:**

The PhD Qualifying Exam is a two-part written exam. The first part of the exam is intended to evaluate the student’s broad knowledge of the content of a computer engineering undergraduate curriculum, ability to reason, formulate and solve problems, as well as to apply analytical and engineering skills. The second part of the exam is intended to evaluate the student’s depth of knowledge in the general area of

his/her dissertation, at a graduate course level. The duration for each part of the exam must be from 2 to 3 hours.

With the registration of the student in the PhD Qualifying Exam, the Research Advisory Committee must meet to define the content of the qualifying exam and specify the reading material. The student must be informed in writing about the content of the qualifying exam and the reading material, at least ten weeks before the date of the qualifying exam.

#### **D.4.2 Qualifying Exam Grading:**

The PhD Qualifying Exam is graded as either “Pass” or “Fail”. A student passes the PhD Qualifying Exam if he/she gets a passing grade for both parts of the exam. A student who fails the PhD Qualifying Exam is permitted a second and final examination. In such a case the student must register for the PhD Qualifying Exam in the semester that follows the semester of the first examination. Failure in the second examination will result in the permanent removal of the student from the doctoral program.

#### **D.5 Research Proposal:**

A student who passes the PhD qualifying exam can register for the Research Proposal. A student must present to the Research Advisory Committee a research proposal stating the proposed research work. The proposed research work must be original, innovative and will lead to new scientific knowledge. The proposal should also include the expected results and contributions, a complete review of the current state on knowledge in the research area of the proposal, as well as any results already achieved and the methodology to be used.

The Research Proposal includes a written report and an oral presentation. The written report of the proposal must be given to the Research Advisory Committee members at least two weeks prior to the presentation of the proposal. The duration of the oral presentation of the proposal must be 60 minutes, with 30 minutes allocated for the

student's presentation and 30 minutes allocated for questions and suggestions by the Research Advisory Committee.

The content of the research proposal report and the suggestion provided the by the Research Advisory Committee in their evaluation report constitute an informal contract between the student and the Committee on the work to be produced by the student in order to satisfy the requirements of the Program.

Instructions on the format of Research Proposal report as well as guidelines on the structure or the proposal are available in the "Research Proposal Guide".

#### **D.5.1 Research Proposal Grading:**

The Research Proposal is graded as either "Pass" or "Fail". The Research Proposal can also be graded as "Incomplete", if the Research Advisory Committee considers that minor improvements are required before the proposal is acceptable. In such a case the student must complete the requirements of the course before the end of the semester that follows the semester on which he was graded with an "Incomplete" grade.

A student who fails the Research Proposal is permitted a second and final attempt. In such a case the student must register for the Research Proposal in the semester that follows the semester of the first examination. Failure in the second attempt will result in the permanent removal of the student from the doctoral program.

#### **D.6 Doctoral Dissertation:**

The doctoral dissertation must include significant research findings in current scientific and/or technical topics through basic and/or applied research, which will lead to new scientific knowledge. The research must be original, innovative, and of high academic caliber so that it can be judged acceptable for publication in internationally recognized academic conferences and journals.

Instructions on the format of Doctoral Dissertation report as well as guidelines on the structure or the report are available in the “Doctoral Dissertation Guide”.

#### **D.6.1 Dissertation Defense:**

The student must defend the scientific research findings and the quality of his/her doctoral dissertation during an oral defense which takes place before the Doctoral Dissertation Evaluation Committee, and is open to the public.

At least six weeks prior to the oral defense date, the student must submit to his Research Advisor his PhD Thesis report, which is also forwarded to the rest of the Doctoral Dissertation Evaluation Committee. Committee members are allowed to provide the student with comments on the PhD Thesis report.

The dissertation oral defense is scheduled by the student’s Research Advisor, in consultation with the members of the Doctoral Dissertation Evaluation Committee, at a date not later than three months after the submission of the PhD Thesis report. The procedure for the defense comprises of three stages:

- An oral presentation of the dissertation. This is in an open presentation lasting 40 to 60 minutes, with additional time available for questions from the public.
- Closed discussion of the dissertation between the student and the members of the Doctoral Dissertation Evaluation Committee.
- Meeting of the Doctoral Dissertation Evaluation Committee to make its final deliberation.

With the completion of the Doctoral Dissertation Defense, the Doctoral Dissertation Evaluation Committee submits to the Coordinator of the Doctoral Program a written substantiated proposal, which can be:

- Approval of the Dissertation and suggestion for the award of the PhD degree. In this case a written substantiated proposal is forwarded, through the relevant academic bodies, to the Senate for ratification and the award of the PhD degree.

- Approval of the Dissertation, with minor changes on the report, and suggestion for the award of the PhD degree. In this case a written substantiated proposal, including the suggestions to the student, is forwarded to the Senate, through the relevant academic bodies, Ratification and the award of the PhD degree, is completed after a written assurance by the student's Research Advisor that the suggestions of the Committee have been successfully addressed by the student.
- Reevaluation of the Dissertation. If the Doctoral Dissertation Evaluation Committee considers that major improvements are required on the dissertation report/defense, it may ask for a repetition of the defense process. In such a case the Committee must provide the student with a substantiated report on the expected improvements. The date for the second and final Dissertation Defense is decided between the members of the Doctoral Dissertation Evaluation Committee, the student and the Coordinator of the Doctoral Program.
- Rejection of the dissertation. In this case the Ph.D. candidate is entitled to ask for a repetition of the defense procedure. The terms and procedure for the resubmission and defense of the dissertation are set out in writing by the Doctoral Program Committee.

The members of the Doctoral Dissertation Evaluation Committee must sign the approved dissertation and submit to the Department three original copies, one for the Department records, one for the Library and one for the student. An electronic version of the thesis in PDF format will also be submitted by the student for keeping in the Department's records and for dissemination.

#### **D.7 Paper Publications:**

The research work of the student must be published in at least three international refereed conferences or journals. At least one of these publications must be in an international journal. A student satisfies this requirement with either the publication of the paper or the notification of acceptance. Furthermore, a student is required to

present his work in at least one conference. This can be the content of one of the required papers mentioned above.

#### **D.8 Graduate Seminars:**

Throughout their doctoral studies, students are required to attend research/scientific seminars, talks and conferences. To satisfy the requirements of each one of these courses the student must attend at least three talks, with a minimum of 24 talks for all six courses. One-day seminars count as two talks, while conferences count as two talks per day.

Furthermore, a student is required to present his research work in at least one seminar series organized by the Department/School.

### **E. Program Duration and Structure:**

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#### **E.1 Program Duration:**

The program is structured in six (6) semesters of 30 ECTS credits each. The minimum duration of the program is six (6) semesters. The maximum duration of the program is twelve (12) semesters.

#### **E.2 Program Structure:**

The program structure into courses which correspond to either normally taught courses or to activities related to the program requirements such as the research proposal the Graduate Seminars, the Dissertation Writing etc. These activities are identified with the relevant courses in order to ensure a controlled and monitored progression of the student in the program.

The program structure with the course semester breakdown must be provided in the "Doctoral Program Regulations" of each doctoral program.