

Ph.D. Program

Handbook of Policies and Procedures

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1.0 INTRODUCTION

This handbook was prepared for the purpose of documenting the policies and procedures that apply to the operation of the Villanova University College of Engineering Ph.D. Program. The handbook is intended as an aid for Ph.D. advisors and student admits and candidates. The information in this handbook is supplemented by the Villanova University College of Engineering Graduate Catalog and the College of Engineering Ph.D. Qualifying Examination Guidelines, both available on-line. This handbook was last revised on the date shown on the front cover.

The Ph.D. Program is administered by the College of Engineering. The Ph.D. degree may be received with emphasis in any of the College's graduate academic programs including interdisciplinary programs. The official degree name on the transcript and diploma is Doctor of Philosophy in Engineering with Emphasis in (Major Department).

2.0 PROGRAM ADMINISTRATION

2.1 Program Coordinator

The Ph.D. Program Coordinator is a staff member who has the responsibility to manage the program and reports directly to the Associate Dean for Graduate Studies and Research (or ADGSR -- hereafter referred to as Associate Dean). The Coordinator will oversee the (i.) processing of applications for admission, (ii.) admissions procedures, (iii.) maintenance of program records, (iv.) coordination and tracking of examinations, (v.) tracking of student progress and handling problems that may arise in student's program, (vi.) high level of quality and proper formatting of Ph.D. dissertations before uploading to the National Archival site, and (vii.) assisting with the marketing of the program. The Coordinator will assist the Associate Dean, who chairs the College of Engineering Ph.D. Program Committee, in running the Ph.D. Program Committee meetings.

2.2 Program Committee

The Ph.D. Program Committee consists of the Associate Dean (the Chair), the Program Coordinator, and a representative from each of the engineering departments, approved annually by the Dean of Engineering. The Committee members provide the link between the Ph.D. program and the individual departments. In addition to advising the Program Coordinator, the Committee reviews and approves the applications for admission, oversees the administration of the Ph.D. Qualifying

Examinations, Comprehensive Examinations, and Final Examinations, and with the Program Coordinator, establishes operating procedures and policies for the program as documented in this handbook. The Committee will periodically review and update the program operating procedures and policies contained in this handbook.

3.0 ADMISSION

Students will apply directly to the program and applications will be directed to the Admissions Coordinator who reports directly to the Ph.D. Program Coordinator. Applicants are required to hold a master's degree in engineering related to their primary area of study. Under special circumstances, the requirement for a master's degree will be waived for extraordinary applicants holding a bachelor's degree in engineering related to their primary areas of study.

3.1 Admissions Criteria

The formal criteria for admission are the following:

Previous Degree

Master's degree in engineering from an ABET accredited institution or an established foreign institution. An applicant applying with only a bachelor's degree in engineering must petition the Ph.D. Committee upon application for a waiver of the requirement of a master's degree.

GPA

For students applying with either a bachelor's or master's degree in engineering, a cumulative GPA of 3.5 on a point scale of 4.0 is required in the most recent engineering degree obtained.

GRE

- The minimum passing score in the Quantitative portion of the GRE examination is 155.
- The minimum passing score in the Verbal portion of the GRE examination is 153.
- Applicants that have a Quantitative score of 155 or better, but that have a substandard Verbal score can be admitted conditionally. A mandatory condition will be that they receive ESL (English as a Second Language) training in a program approved by the Ph.D. Committee (see below)
- The GRE will never be waived under any condition

TOEFL or IELTS

 TOEFL - Score of at least 80 for international applicants is expected with mandatory ESL (see 3.1 ESL). o IELTS - Score of at least 6.5 (see 3.1 ESL)

The TOEFL / IELTS examination may be waived by the Associate Dean if there is sufficient proof of the candidate's ability to speak, comprehend, and write high-quality English. An example of this is if the candidate were successfully working for at least several years in an engineering position.

ESL

- o In most cases, international students who completed their previous degree overseas, willbe enrolled in English language training. This experience must be completed by the conclusion of the second academic semester, for students who begin in fall semester, andby the conclusion of the summer term, for students who begin in spring semester.
- O Upon completion of the training, the director of the ESL program must present evidence to the Program Coordinator that the course has been successfully completed, indicative of English competence in both reading and writing at a level commensurate with graduate studies, as established by the ESL program.
- Two letters of recommendation; one from an academic recommender, and one professional (if aprofessional recommender is not possible, a second academic recommender is acceptable)
- Original transcripts for all degrees earned
- Written personal statement of research interests and career goals
- WES Evaluation For all international students whose last degree was from an overseas
 institution, the transcripts must undergo a credential evaluation by World Education Services.
 The credential evaluation translates all transcript information into the U.S.-based system to
 facilitate admission committee reviews and can uncover inconsistencies in the transcript if they
 occur. Applicants are responsible for all costs associated with the credential evaluation.

3.2 Admission Deadlines

Applications for the Ph.D. program are normally reviewed for admission into the fall semester and into the spring semester annually according to the following deadlines:

- <u>International</u> student applications, with the required credentials, must reach the College Admissions Office before <u>February 15</u> for the next fall semester and before <u>September 15</u> for the next spring semester
- <u>Domestic</u> student applications, with the required credentials, must reach the College Admissions
 Office before <u>February 15</u> for the fall semester and before <u>September 15</u> for the spring semester.

3.3 Conditional Admission

Graduates holding an M.S. degree from mathematics, physical sciences, and other curricula may beadmitted conditionally if a plan for a remedial course of action is formally submitted by the applicant and approved by the advisor along with the normal application materials. Typically, remedial work may involve taking undergraduate courses normally expected of an engineering application. Upon completion of the remedial course of action the student's application with be reviewed and a final decision will be made on unconditional admission.

Applicants to the program who have deficiencies in the normal requirements may be admitted conditionally. The conditions for the acceptance and the plan and timeframe for a remedial course of action will be clearly specified. Upon completion of the course of action the student's application with be reviewed by the Ph.D. Committee and a final decision will be made on unconditional admission.

4.0 FACULTY ADVISOR

It is the student's responsibility to secure a Faculty Advisor (hereafter called the Advisor), *prior to the start of course work.* By College rule (referred to as an Individual Course Application or ICA), students are allowed to apply to enroll for up to two (2) graduate courses without applying to a graduate program, including the Ph.D. program. *Students who pursue this path must be aware they are not officially admitted into the PhD program and assume the risk of not being accepted oncethey apply, i.e., there is no implied acceptance into the PhD program when applying for ICA.* TheAdvisor will establish research direction, oversee regarding the student's work, and provide academic and technical advising. The Advisor and the student's Advising Committee (see 7.0) willassist the candidate in developing a suitable study plan and research topic for the dissertation. TheAdvisor will periodically monitor the student's progress and ensure that all steps in the program are executed in a timely way with the approval of the Advising Committee as necessary. The Faculty Advisor must be a full-time faculty member. In some circumstances, Research Professors or Continuing Non-Tenure Track professors will be allowed to serve as the Faculty Advisor with permission of the Ph.D. Committee. *Successful admission into the PhD program does not guarantee the student will find an advisor and/or financial support.*

5.0 GENERAL DEGREE REQUIREMENTS

5.1 Program Requirements for Students with MS Degree

5.1.1 Official Start of Program

The semester for which the student is formally admitted to begin study, whether it is the fall or the spring semester, will be considered to be the official start of the student's program. Normally, that semester is also the first semester in which the student will take courses towards their Ph.D. degree.

5.1.2 Coursework

The student must take a minimum of six technical courses (18 credits) including at least one graduate level mathematics course. The actual courses and any additional courses will be listed in a Plan of Study (see 8.0 and COE-PHD-06.pdf) that will be approved by the student's Advisor. These courses will be above and beyond remedial courses taken to clear aconditional admission. Remedial courses will not be accepted towards the formal course requirement. An undergraduate course <u>may not</u> be applied towards the Plan of Study for the Ph.D. degree.

In addition to the technical courses, all full-time Ph.D. students are required to take EGR 9240 PhD Professional Development Seminar (1 credit) as soon as possible after the passingthe Qualifying Examination. Additional courses in professional development can be takenwith approval of the advisor

(https://www1.villanova.edu/university/engineering/academic-programs/graduate-studies/doctoral-program/professional-development.html). If sufficient additional courses are taken, the student may be able to earn a certificate in *Professional Development:*Academic Scholar or Professional Development: Industry Scholar.

The mathematics requirement may be waived by permission of the Program Coordinator if, for example, the student has had such courses during his/her master's program. Permission waive the math requirement must be submitted upon submission of the plan of study.

5.1.3 Research Credits

Beyond the required 18 course credits, the student will be required to register for 30 credits of research. Normally the research credits will be fulfilled by enrollment in Dissertation

Research credits. However, formal credit courses that are approved by the faculty advisor and that pertain to the candidate's research will be allowed to count towards the 30 credits of Dissertation Research.

5.1.4 Transferred Coursework

<u>Two graduate courses</u> taken prior to formal admission to the program and within <u>six years</u> of the first semester of Ph.D. study may be transferred and applied to the formal Plan of Study only if these courses were not applied toward the requirements for another degree. Permission to apply these courses must be submitted by a formal written request to the Ph.D. Program Coordinator. This applies strictly to courses taken at Villanova University. Courses taken at any other accredited institution, which were already applied to a degree, are not allowed to be transferred.

5.1.5 Qualifying Examination

The student will be required to take a Qualifying Examination at the end of the first year of study, or in the third academic semester, for full time students and at the end of the second year of study, or in the fifth academic semester, for part time students. This examination will be in two areas: mathematics and a specialized disciplinary area determined by the student inconsultation with the Advisor. Both the math and the disciplinary examination must be taken at the same time; they are two parts of a single examination. A maximum of two attempts are permitted to pass this examination. Details of this examination are given in *COE-PHD-03 Qualifying Examination Guidelines*.

In certain programs, successful completion of a math course or courses may be substituted for the math qualifying exam.

5.1.6 Comprehensive Examination

The student will be required to take a Comprehensive Examination after passing the Qualifying Examination and after sufficient research progress has been made to allow the development of this formal proposal for dissertation research. Normally, the Comprehensive Examination is expected to be taken within one calendar year of passing the Qualifying Examination for full-time students, and within two calendar years for part time students.

This examination will consist of two parts: (1) a written dissertation proposal submitted to the Advisor and Advising Committee for examination, and (2) an oral examination consisting of a formal oral presentation of the dissertation proposal, followed by an oral examination administered by the Advising Committee to examine the student's knowledge and competence in core areas necessary to successfully complete the proposed dissertation. Details of this examination are given in a subsequent section.

5.1.7 Doctoral Dissertation and Final Examination

The student will be required to write a Doctoral Dissertation and defend the dissertation in a Final Examination, also called a dissertation defense. Details on the final defense and dissertation are given in a subsequent section.

5.1.8 Time to Degree Completion

The typical graduation time for the degree is 3-5 years for full time students who start with a M.S. degree. The typical graduation time for students starting with a B.S. will be considerably longer.

5.1.9 Thesis Continuation Credits

It is not uncommon for candidates to continue to work on their research and writtendissertation even after they have completed their course and dissertation credit requirements. In that case, it is recommended that the candidate register for ThesisContinuation credits. The following policies apply to Ph.D. candidates

- Thesis continuation credits (zero credits) will automatically be granted for one semester to any student who has completed their course and dissertation requirements.
- After this initial semester, the student must submit a petition to the Associate Dean requesting permission to take thesis continuation credits. The normal expectation is that this request will be granted if reasonable justification is provided.

5.2 Requirements for students with BS degree entering directly into the Ph.D. program

This path is extremely selective and limited to only the most highly qualified candidates. Students holding a BS degree may apply directly to the Ph.D. program but will typically receive an acceptance that is conditional on their performance in the first year. Such students must also meet the admissions standards for the M.S. program. After one year, the student's performance will be reviewed by their advisor and by the Ph.D. Committee and a decision

will be made whether the student may continue unconditionally in the Ph.D. program. If, for any reason, the student is not permitted to continue in the Ph.D. program, then s/he may elect to transfer into the M.S. program until completion of the M.S. degree.

5.2.1 Official Start of Program

The semester for which the student is formally admitted to begin study, whether it is the fall or the spring semester, will be considered to be the official start of the student's program. Normally, that semester is also the first semester in which the student will take courses towards their Ph.D. degree.

5.2.2 Coursework

The student must take a minimum of 14 technical courses (42 credits) including one graduate level mathematics course. The actual courses and any additional courses will be listed in aPlan of Study (see 8.0 and COE-PHD-06.pdf) that will be approved by the student's Advisor. These courses will be above and beyond remedial courses taken to clear a conditional admission. Remedial courses will not be accepted towards the formal course requirement. An undergraduate course <u>may not</u> be applied towards the Plan of Study for the Ph.D. degree.

In addition to the technical courses, all full-time Ph.D. students are required to take EGR 9240 PhD Professional Development Seminar (1 credit) as soon as possible after the passing the Qualifying Examination. Additional courses in professional development can be taken with approval of the Advisor

(https://www1.villanova.edu/university/engineering/academic-programs/graduate-studies/doctoral-program/professional-development.html). If sufficient additional courses are taken, the student may be able to earn a certificate in *Professional Development: Academic Scholar* or *Professional Development: Industry Scholar*.

The mathematics requirement may be waived by permission of the Program Coordinator if, for example, the student has had such courses during his/her master's program. Permission

to waive the math requirement must be submitted upon submission of the Plan of Study.

5.2.3 Qualifying Examination

The student will be required to take the Qualifying Examination by the end of the second year of study, or in the fifth academic semester. All other program requirements will be the same as for the student who enters with a master's degree.

5.2.4 Time to Degree Completion

The typical graduation time is expected to be 4-6 years.

5.3 Part-Time Students

Part-time students have the same requirements as full-time students except that the requireddates for taking the Qualifying Examination and the Comprehensive Examination will be extended.

5.3.1 Qualifying Examination

Part-time students are required to take the Qualifying Examination by the end of the second year of study, or in the fifth academic semester. Part-time students <u>are not</u> required to take all the examinations at the same examining period, but they must take the first qualifying examination by the end of the second year, or during the fifth academic semester, and must complete the examinations by the end of the third year of study, or during the seventh academic semester.

5.3.2 Comprehensive Examination

Part-time students are required to take the Comprehensive Examination no later than two years after passing the Qualifying Examination.

5.3.1 Residency Requirements

There are no residency requirements for part-time students.

6.0 QUALIFYING EXAMINATION

The Ph.D. Qualifying Examination is an examination administered by the program to assess whether the student has adequate technical depth and breadth required to undertake the Ph.D. degree. The examination is administered two times per academic year, in the second week of the fall semester and the second week of the spring semester. The requirements, policies, and procedures for the Qualifying Examination are described in detail in the document *COE-PHD-03 Ph.D. Qualifying Examination Guidelines*.

7.0 ADVISING COMMITTEE

An Advising Committee will be appointed for each student. The Advising Committee, which includes the Advisor, will administer the Comprehensive and Final Examinations, and will provide expertise and guidance as needed to assist the student in his/her research.

The Advising Committee will have a minimum of three and a maximum of five members, not including the Advisor. The composition of the committee will follow these guidelines:

- The committee will contain at least two internal members. An internal member is defined as an examiner from inside the College of Engineering.
- At least one of the committee members, but no more than two of the members, will be external
 to the College of Engineering. Of these external members, at least one must be external to
 Villanova. For example, that member may come from another academic institution, or from
 another enterprise such as a private company or a national laboratory.
- The number of external committee members cannot exceed the number of internal committee members.
- All committee members, except for the Honorary member (below), must be terminal degreed.
- If a recent COE PhD graduate is being considered as a committee member, this person must not have overlapped with the candidate in their respective PhD program times and must not have been part of the same research team.
- An Honorary Member of the Committee is permitted. This category may include a terminal- or non-terminal degreed person who is an expert in the student's field of research and thus adds value to the Committee. The Honorary Member is non-voting and non-signing but can participate in the closed sessions of the oral comprehensive and final examinations.
- The PhD Program Coordinator will approve the committee by signature on the appropriate form. The Advising Committee MUST be formed within one year of passing the Qualifying Examination and a minimum of three months before the Comprehensive Examination. For continuity and stability reasons, no committee member can be added or removed during the period of three months before the Comprehensive Examination. Form COE-PHD-05 Appointment of Advising Committee must be filed to formally appoint the committee.

8.0 PLAN OF STUDY

Each student, in consultation with his/her Advisor and Advising Committee, will choose a program of study that will satisfy the general requirements and be helpful in the dissertation work. Some sample study plans are shown in the appendix of this document. The student will submit the original Ph.D. Plan of Study to the Ph.D. Program Coordinator on form *COE-PHD-06 Plan of Study* by the third academic semester for full time students, or the fourth academic semester for part time students. The Plan of Study must be approved by the Advisor by signature on the form.

9.0 COMPREHENSIVE EXAMINATION

Examination. This examination should be taken approximately one year after the Qualifying Examination for full time students or two years after the Qualifying Examination for part time students. The examination is to be taken when the student has completed most of the course workoutlined in his/her Plan of Study and has made a substantial start toward a dissertation.

The intent of the Comprehensive Examination is to ensure that the candidate has successfully defined a worthy PhD topic and is academically prepared to undertake the study. The examination will test the student's knowledge in advanced subjects in the major/minor areas of study, as well as inthe specialized dissertation area. The members of the student's Advising Committee shall meet withthe Advisor to agree on the content, scope, and schedule of the written and oral examinations. Indefining the oral portion of the Comprehensive Examination, the committee will consider the scope of the Dissertation Proposal, the scope of the student's Qualifying Examination, the student's performance on the Qualifying Examination, and the student's Plan of Study.

9.1 Comprehensive Examination Committee

This committee will consist of the Advisor and the Advising Committee. The committee for the oral portion will also include a College representative (hereafter called the Moderator) who will be a faculty member, post-doc, or research professor with experience in the supervision of Ph.D. students. The Moderator will be a non-voting member of the oral examining committee and will be the de facto chair of the oral proceedings. The official function of the Moderator is to ensure that the oral examination is conducted in a rigorous, fair, and unbiased manner. The results of the examining committee vote will be recorded by the Moderator as chair, and results conveyed to the College PhD Committee.

9.2 Written Portion – Dissertation Proposal

The written portion of the Comprehensive Examination will consist of a written dissertation proposal. The dissertation proposal is a properly prepared technical document that describes the proposed Ph.D. research. This document should consist of an abstract, introduction, description ofproposed work, presentation and discussion of preliminary results, summary, and references. Theproposal should be prepared by the student with <u>limited but critical</u> guidance from the Advisor. Thestudent should realize that the proposal is an important part of the Comprehensive Examination. Thepurpose of the proposal is to indicate, not only the academic preparation of the student, but also his/her ability to carry out original and creative research and to communicate this effectively in a professional manner. The proposal should normally be in the range of 30-50 pages, in 12 pt. fontand 1.5 line spacing, including tables, figures, and references, but not front matter. The Advisor

hasthe authority to request an increase in number of pages above 50 by petitioning the Advising Committee. The Advising Committee, through consensus, has the right to reject the petition or propose a new page limit that applies only to the subject work. This page limit must be adhered to for the Comprehensive Examination to move forward. Samples of previous student Ph.D. proposals can be found in the official Ph.D. web pages.

The proposal may be based on discussions between the student and the Advisor and Advising Committee, appropriate references, independent research, and other material such as books, coursework, or input from faculty. All second-hand information in the proposal (including private communications) must be clearly referenced, and the wording of the proposal must be that of the student.

The dissertation proposal must be submitted to the Advisor and Advising Committee a minimum of 30 days prior to the date proposed for the Oral Examination. The student will be allowed to proceed to the Oral Examination after the Committee has read the proposal and determined that it is sufficiently comprehensive to proceed to the Oral portion. The Advisor will approve the written portion by signature on behalf of the Examination Committee on form *COE-PHD-07 Application for PhD Comprehensive Exam*. If the proposal is judged unsatisfactory for minor reasons, the student will be asked to revise it and resubmit it within two weeks. Only one revision is permitted. If the proposal is unsatisfactory for major reasons, it will be rejected. The student will be asked to reformulate his/her approach (perhaps even to change his/her thesis topic) and to rewrite the proposal.

9.3 Oral Portion

After the Dissertation Proposal is approved, the candidate may schedule the oral examination. Detailed procedures for conducting the oral portion of the comprehensive examination are available to faculty advisors and examining committee chairs in form COE PHD-07.1 Instructions for Oral Portion of the Comprehensive Examination available on the program website.

The oral examination will have a minimum duration of two hours and a maximum of *three* hours. The Moderator will be the de facto chair of the proceedings and will ensure that the oral examination proceeds according to the stated rules and policies. The oral examination must be held no sooner than 30 days and no later than three months after the written portion (dissertation proposal) is received by the Committee.

The oral examination begins with a formal presentation (including visual aids) by the student on his/her proposed research. In general, the formal presentation should take between fifty and sixty *Handbook of Policies and Procedures* 14 *COE-PHD-01 Rev Sept 15, 2021*

minutes and *is open to the public*. After the formal presentation, the examination will continue in a closed session. In the closed portion, under the leadership of the Moderator, the Advising Committee and Advisor will ask questions of a more general and comprehensive nature. These questions may be based on course work, fundamentals relating to the student's area of research, or specific issues related to the proposal or the student's presentation.

Based on the evaluation of the written dissertation proposal and the student's performance in the oral portion of the examination, the examining committee will award the grade of Pass or Fail. If the student receives a grade of Fail, the Committee may, at the discretion of the Advisor, grant the student a second opportunity to take the Comprehensive Examination. An examination re-take should be scheduled no sooner than one month and no later than six months after the first attempt. No more than two attempts at this examination will be permitted, even if the student transfers to another department within the College. If the student receives a grade of Fail, s/he will be excused from the program.

Other than the Advisor, it is permissible for a Committee member to participate in the oral examination *remotely*. This requires that the slides and audio (also desired is the video of the presenting student, but this is not required) be seen and heard by any remote member for that member to be able to actively participate in the same manner as if physically present. The Advisor must be physically present in the oral examination, without exception.

10.0 ADVANCEMENT TO CANDIDACY

Six months <u>prior</u> to the Final Examination (dissertation defense), the student must submit form *COE-PHD-08 Advancement to Candidacy*. This form will initiate the process of checking that all program and university requirements have been met so that the degree may be completed upon submission of a satisfactory dissertation and a successful defense. For more information contact the College Graduate Programs Administrative Assistant.

11.0 SUBMISSION OF DISSERTATION

A preliminary but substantially complete version of the dissertation must be submitted to the Advising Committee for approval a minimum of 30 days prior to the date anticipated for the Final Examination. The Advising Committee must approve the request to take the Final Examination by signature and will do so if the preliminary version of the dissertation is substantially approved.

12.0 FINAL EXAMINATION

examination by filing form COE-PHD-09 Application for Final Oral Examination.

Detailed procedures for conducting the final examination are available to faculty advisors and examining committee chairs in *COE-PHD-09.1 Instructions for Final Examination* available on the program website.

The Final Examination, also known as the Dissertation Defense, will consist of an oral examination with a minimum duration of two hours and a maximum of three hours. The Examining Committee will consist of the Advisor and Advising Committee. The Moderator will be the de facto Chair of the proceedings and will ensure that the examination proceeds according to the stated rules and policies.

The examination begins with an open session with a formal presentation (including visual aids) by the student on his/her dissertation research. The open portion is open to the public. In the presentation, the student should clearly state the objectives of the research and the hypotheses to be proven. The presentation should then summarize the approaches and findings that satisfactorily address the objectives and prove the hypotheses. In general, the formal presentation should take about one hour and is open to the public. After the formal presentation, the examination will continue in a closed session. In the closed portion, with the Chair serving as moderator, the Advisorand Advising Committee will ask questions related to the dissertation and its technical underpinnings. These questions may be based on any topic covered by the dissertation, includingfundamentals relating to the topic.

Based on the evaluation of the dissertation and the student's performance in the Final Examination, the examining committee will award the grade of Pass, Fail with Retake, or Fail. Even if the student receives a grade of Pass, the committee may require mandatory changes to the dissertation. The committee will either read and approve the amended dissertation, or waive their right to read the amended dissertation, and require only that the Advisor read and approve the final dissertation onbehalf of the committee. If the student receives a grade of Fail with Retake, s/he will be granted asecond opportunity to take the Final Examination. No more than two attempts at this examination will be permitted. If the student receives a grade of Fail, s/he will be excused from the program.

Other than the Advisor, it is permissible for a Committee member to participate in the Final Examination remotely. This requires that the slides and audio (also desired is the video of the presenting student, but this is not required) be synchronously seen and heard by any remote memberfor that member to be able to actively participate, in real time, in the same manner as if physically present. The Advisor must be physically present in the oral examination, without Handbook of Policies and Procedures 16 COE-PHD-01 Rev Sept 15, 2021

exception.

13.0 DISSERTATION

Following the final examination, two copies of the dissertation, approved by the Advisor and Advising Committee, must be filed with the College. The College requires a navy-blue leather-bound copy of the dissertation. A manual of instructions for preparing a dissertation, *A Manual for Theses and Dissertations*, is available on the College of Engineering Ph.D. Program website.

14.0 DIPLOMA AND FINAL TRANSCRIPTS

On the official diploma and on the commencement program, the degree will be indicated as: Doctor of Philosophy in Engineering. The official transcripts will give the degree name above and will also indicate the college, department, and major field of study.

15.0 POLICY FOR PARTICIPATION IN COMMENCEMENT

The normal expectation is that Ph.D. students who wish to participate in the College and University Commencement ceremonies, held each year in May, will have completed all degree requirements by the deadline for submission of dissertations for the spring semester (published each semester by the Ph.D. Program Coordinator). In the case of students who have not completed all requirements, but wish to "walk" through the ceremonies, the following applies:

- 1. The student must petition the Associate Dean for permission to participate in the Collegeceremonies as a "walker."
- The petition must be signed by the student to indicate acceptance of the policies, and by
 the student's academic advisor declaring that the student will complete all degree
 requirements by the end of April the following year. See the official College form at
 https://www1.villanova.edu/content/dam/villanova/engineering/documents/form_graduation.pdf
- 3. The student may not participate in the University ceremony more than once.
- 4. The student may not participate in the University Commencement for Graduate Students (as of 2019, this differs from the University Undergraduate Commencement; the University Commencement for Graduate Students is scheduled on Saturday afternoon of commencement weekend) as an official graduate. With permission of the Associate Dean, the student may be allowed to walk. The student may not wear the Ph.D. hood at this ceremony as the hood is emblematic of a fully conferred doctoral degree, and the student should not expect to receive a diploma.

As a point of information, the student's name will appear in the University Commencement program only after their degree requirements have been completed; hence "walkers" should not expect to seetheir name in the program in the same year they "walk," but rather in the following year.

APPENDIX A.

APPROVAL PROCESS STEPS FOR PHD PROGRAM

	PROGRAM STEP	DOCUMENT NUMBER (All documents available on the PhDProgram website)	DEADLINE FULL-TIME STUDENT	DEADLINE PART-TIME STUDENT (add another column for BS to PhD)
1.	Formal Admission toprogram			
2.	Read Handbook of Policies and Procedures	COE-PHD-01 Handbook of Policies and Procedures: College of Engineering Ph.D. Program		
3.	Secure Faculty Advisor		Before the start of 1st semester	Before the start of 1st semester
4.	Meet with Advisor andSubmit Ph.D. Program Checklist	COE-PHD-02 Ph.D. Degree ProgramChecklist	End of 1st semester	End of 1st semester
3.	Submit Request to take Qualifying Examination	COE-PHD-04 Application for Ph.D. Qualifying Examinations	60 days prior to taking QualExam	60 days prior to taking QualExam
4.	Read Qualifying Examination Handbook	COE-PHD-03 Ph.D. QualifyingExamination Guidelines		
5.	Take Qualifying Examination		Beginning of 3rd semester of study	Beginning of 5th semester of study
6.	Form the Advising Committee	COE-PHD-05 Appointment of Advising Committee	End of 3rd semester of study	End of 6th semester of study
7.	Submit Plan of Study	COE-PhD-06 Ph.D. Plan of Study COE-PHD-6.1 Prior Course ApprovalCOE-PHD-6.2 Permission to Change Plan of Study	End of 3rd semester of study	End of 6th semester of study
8.	Submit Dissertation Proposal to Advising Committee		30 days prior to Oral Comp	30 days prior to Oral Comp
9.	Submit Request to take Oral Comprehensive	COE-PHD-07 Application for Ph.D.Comprehensive Examination	At time of submission of	At time of submission of

	Examination		Dissertation Proposal	Dissertation Proposal
10.	Take Oral Comprehensive Examination		One year after Qual Exams	Two years after Qual Exams
11.	Advancement to Candidacy	COE-PHD-08 Application for Admission to Ph.D. Degree Candidacy	6 mos. prior to Final Oral Defense	6 mos. prior to Final Oral Defense
12.	Submit Draft Dissertation	See "A Manual for Theses and Dissertations" available on the Ph.D. Program website	30 days prior to Final Oral Defense	30 days prior to Final Oral Defense
12.	Submit Request to take Final Oral Examination or Defense	COE-PHD-09 Application for Final Oral Examination	After dissertation has been approved by committee	After dissertation has been approved by committee
13.	Final Oral Defense of Dissertation			
14.	Submit Final Dissertation			