Ph.D. Program Handbook

Technology Management

Department of Engineering and Technology Management
Maseeh College of Engineering and Computer Science

www.pdx.edu/engineering-technology-management/

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GENERAL INFORMATION

MAJOR MILESTONES

In addition to the University’s general degree requirements, the Ph.D. program in Engineering and Technology Management consists of the following ten steps:

1. Admission to the program.
2. Successful completion of the equivalent of at least 60 credits of coursework beyond the Bachelor’s degree.
3. 12 credits of independent study supervised by ETM faculty resulting in research paper(s) to be completed prior to the comprehensive exam.
4. At least one paper accepted for a peer-reviewed conference or journal on Engineering and Technology Management.
5. Successful completion of a comprehensive examination to demonstrate mastery of the Engineering and Technology Management field, including the evaluation of up to three research papers, in which the student is the sole or leading author.
6. Selection of the PhD Advisor from the ETM faculty and formation of the Ph.D. committee including one member appointed by the Dean of Graduate Studies.
7. Development of the dissertation proposal and its approval by the Ph.D. committee resulting in the advancement to Ph.D. candidacy.
8. Registering for at least 27 dissertation credits while conducting the research after the advancement to candidacy.
9. Preparation of at least one paper, based upon the dissertation research, suitable for inclusion in a refereed research.

FACULTY ADVISOR

A Faculty Advisor is assigned to each student upon his/her admission to the PhD program, and the student’s preliminary academic plan is developed with the Faculty Advisor and recorded on the Curriculum Plan form. Students may change Faculty Advisor at any time, by submitting to the ETM Office a completed Request to Change Faculty Advisor form.

COURSES/INDEPENDENT STUDIES

Typically, students begin their PhD programs by taking courses during their first two years. The required 12 credits of Independent Study may be taken concurrently with other courses, or may be taken after other course requirements are completed. Each Independent Study is expected to be completed no later than the end of the third quarter after the end of the quarter for which it is registered.

CONTINUOUS ENROLLMENT/LEAVES OF ABSENCE

Doctoral students should enroll in at least one credit per term throughout their PhD programs, except during summer terms. They should enroll between four and nine credits during the terms they are preparing for and taking comprehensive exams as well as during the time when they are preparing and defending their dissertation proposals. However, students may petition the department for a leave of absence for up to one calendar year, by submitting to the PhD Program Coordinator a Request for a Leave of Absence from Doctoral Study form, no later than one week before the last day to register for classes in the term in which the leave is desired. A leave of absence is granted only to doctoral students in good standing and does not constitute a waiver of the time limit for completion of the doctoral degree at Portland State University. If the student has reached PhD candidacy, the Program Coordinator will send a copy of the Leave of Absence from Doctoral Study form to the Office of Graduate Studies.
COMPREHENSIVE EXAMINATION

COMPREHENSIVE EXAM PROPOSAL
The Comprehensive Exam Proposal consists of a listing of courses taken to fulfill Core, Specialization and Methodology requirements, plus the research papers from the Independent Studies. At least one of these research papers must be accepted for presentation in a peer-reviewed (or equivalent) conference related to Engineering and Technology Management.

Courses to be included in the Comprehensive Exam Proposal should be no older than 7 years minus 1 term. For courses older than 7 years minus 1 term, it may be possible to use a course towards the Comprehensive Exam Proposal by demonstrating proficiency. The Faculty Advisor and instructor currently teaching the course will determine how proficiency can be demonstrated.

TIMELINE FOR SUBMISSION OF THE COMPREHENSIVE EXAM PROPOSAL
Students are required to take their comprehensive exams within the five years of their admission to the doctoral program.

Students should submit the Comprehensive Exam Proposal to the Faculty Advisor no later than the end of one term after the completion of courses and the Independent Studies. Exceptions to this timeline can be made by the student’s Faculty Advisor.

THE COMPREHENSIVE EXAM COMMITTEE
The composition of the Comprehensive Exam Committee is determined by the student and the Faculty Advisor. The Committee consists of at least four faculty members including minimum two from the ETM department. Three of the members must be full-time faculty members.

ENROLLMENT WHILE PREPARING THE COMPREHENSIVE EXAM PROPOSAL
The students should enroll for a minimum of four credits during the terms they are preparing for and taking comprehensive exams. Enrollment is done on a “BY ARRANGEMENT” form as ETM 601. See sample

THE COMPS EXAM PROPOSAL MEETING
The purpose of this meeting is to determine whether the student is ready for the Comprehensive Exam. When the student and the Faculty Advisor determine that the Comprehensive Exam Proposal is ready for formal review, the student schedules a meeting with the Faculty Advisor and the Comprehensive Exam Committee. If a student wishes to take the Comprehensive Exam over the summer term, the meeting must be held no later than May 15.

After the meeting is held:

- If student is not deemed ready for the Comprehensive Exam, the Comprehensive Exam Committee recommends to the department Chair one of the following:
  - A course of action that might include, but is not limited to, additional courses and/or Independent Studies, and a timeline for taking the exam (up to one year)
  - Termination of the student’s enrollment in the doctoral program
- If the student is deemed ready for the Comprehensive Exam, the Written Exam is prepared by the faculty and typically made available to the student within 4 weeks
THE COMPREHENSIVE EXAM
The purpose of the Comprehensive Exam is to determine depth and breadth of the knowledge that the student has acquired in the PhD program and the likelihood that he/she will be successful in conducting doctoral research. All students take a Written Exam that has been developed specifically for them, and followed by an Oral Exam. After the Written and Oral Exams are evaluated by the Comprehensive Exam Committee, the student may be required to take an additional 2-4 hour written exam. These would be scheduled at the student’s and Committee’s earliest convenience.

The student is allowed up to 3 months to take the Written Exam. After the Written Exam is turned in, typically the student will have the results within one month. An exception to this is if the Written Exam is turned in between May 15 and September 15. Because many ETM faculty are engaged in research projects away from the university over Summer term, they may not be available to evaluate the Exam until they return. Another exception is if the Exam is turned in from late November through December. Because of the winter holidays, faculty may not be available to evaluate the Exam as quickly as at other times of the year.

The written exam is to be done independently and should not be discussed with anyone unless a question explicitly calls for it. Any questions regarding the exam should be sent by email to the full exam committee.

EVALUATION OF THE COMPREHENSIVE EXAM
The Comprehensive Exam is evaluated on a Pass, Low Pass, or Fail basis, and recorded on the Comprehensive Exam Evaluation by the faculty advisor and given to the PhD Program Coordinator.

- If the majority of the members give Pass or Low Pass grades, the student passes.
- However, if there are more Low Pass grades than Pass grades, it is a conditional pass. The Comprehensive Exam Committee decides on the condition.
- If the student does not pass, the Comprehensive Exam Committee recommends to the department Chair one of the following:
  - A course of action that might include, but is not limited to, additional courses and/or Independent Studies, and a timeline for re-taking the exam (up to one year)
  - Termination of the student’s enrollment in the doctoral program

If the student passes the Comprehensive Exam, the student is allowed one year to develop and submit a dissertation proposal. Documentation of passing the Comprehensive Exam is sent to the Office of Graduate Studies by the Program Administrator.
DISSERTATION PROPOSAL

SELECTION OF THE Ph.D. ADVISOR
Before the submission of the Dissertation Proposal, the student must select a PhD Advisor, who will work with the student to select members of his/her Dissertation Committee and head that Committee. Students may select or change their PhD Advisor at any time, by submitting to PhD Program Coordinator a completed Request to Select/Change PhD Advisor form.

FORMATION OF THE DISSERTATION COMMITTEE
The Dissertation Committee consists of the PhD Advisor and a minimum of three and a maximum of five additional members, including one appointed by the Office of Graduate Studies. At least two of the Committee members must be full-time ETM faculty, and all members must hold earned PhDs. The GO-16D, Appointment of the Doctoral Dissertation Committee form, dissertation topic, and preliminary HSRRC draft are submitted to the Office of Graduate Studies for approval, with copies to the Program Coordinator for the student file. Completed GO-16D forms should be given to the PhD Program Coordinator, she will collect necessary signatures and forward to OGS for final approval. Once approval has been given, notification will be sent via email to student, committee members and PhD Program Coordinator.

THE DISSERTATION PROPOSAL
The dissertation proposal includes an executive summary, a comprehensive literature search, a description of the proposed research and methodology, a justification that if the proposed work is completed it will contribute to the state of knowledge, a preliminary plan for data gathering and analysis, an approximate schedule of research, a list of expected outputs and contributions. The literature search section is expected to show the gaps in the existing literature, and explain how the proposed research will fill some or all of those gaps.

TIMELINE FOR SUBMISSION OF THE DISSERTATION PROPOSAL
The Dissertation Proposal should be submitted to the Dissertation Committee no later than one year after the passing of the Comprehensive Examination. The student, with the PhD Advisor’s approval, may petition the department for an extension of up to one year in which to submit the Dissertation Proposal. This petition should be made via email to the Program Director.

ENROLLMENT WHILE PREPARING THE DISSERTATION PROPOSAL
The students should enroll between four and nine credits during the terms they are preparing and defending their dissertation proposals. Registration is done on a “BY ARRANGEMENT” form, register as ETM 603 DISSERTATION. Complete form and bring to the PhD program Coordinator, Becky Fidler in FAB 50-07. She will collect necessary signatures and take the form to the registrar’s office. See sample

Students can start registering for dissertation credits on the quarter following the successful completion of the comps exam.

HUMAN SUBJECTS RESEARCH REVIEW
The application is submitted after the dissertation proposal is accepted. Information on the review process and application forms are available online at https://sites.google.com/a/pdx.edu/research/integrity/human-subjects
THE DISSERTATION PROPOSAL PRE-REVIEW MEETING (Optional)
The purpose of the Dissertation Proposal Pre-Review meeting is to determine whether the Dissertation Proposal is ready for formal review. When the student and the PhD Advisor believe that the Dissertation Proposal is ready for review (but not before receiving written approval of the Dissertation Committee by the Office of Graduate Studies), the student contacts the Program Coordinator for scheduling the Dissertation Proposal Pre-Review meeting. All members of the Dissertation Committee should participate in the Dissertation Proposal Pre-Review meeting. If the Proposal is deemed not ready for formal review, the Committee decides when to meet again to review it. If the Dissertation Proposal is deemed ready for formal review, the student contacts the Program Coordinator for scheduling the Dissertation Proposal Review meeting.

SCHEDULING THE DISSERTATION PROPOSAL REVIEW MEETING
When the Dissertation Committee determines that the Dissertation Proposal is ready for review, the student contacts the Program Coordinator for scheduling the Dissertation Proposal Review meeting. Typically, the Dissertation Proposal Review meeting is held within 3-4 weeks after the Pre-Review meeting. All members of the Dissertation Committee must participate in the Dissertation Proposal Review meeting, whether in-person or via telephone or video-conferencing.

EVALUATION OF THE DISSERTATION PROPOSAL
The Dissertation Proposal is evaluated on a Pass or Fail basis. If the majority of the members give Pass grades, the student passes.

- If the Dissertation Proposal is not approved, the Dissertation Committee recommends to the department Chair one of the following:
  - A course of action which might include, but is not limited to, requiring additional courses and/or changing the research focus, and a timeline for re-submitting the proposal (up to one year)
  - Termination of the student’s enrollment in the doctoral program
- If the Dissertation Proposal is approved:
  - The committee needs to fill out a GO-23 Doctoral Request for Advancement to Candidacy form recording the outcome of the proposal defense and advancing doctoral students to candidacy. The GO-23 Doctoral Request for Advancement to Candidacy form is also available on the forms page at: http://www.pdx.edu/ogs/forms
  - The Program Administrator, on behalf of the department Chair, notifies the Office of Graduate Studies of the Proposal’s approval and requests candidacy
  - The student revises the Human Subjects Research Review Committee draft proposal and submits a final version to the HSSRC for approval
  - A plan for meeting the university’s residency requirement (3 consecutive terms of full-time enrollment after admission to the doctoral program) must be submitted to the Program Administrator, if the requirement has not yet been met.
DOCTORAL CANDIDACY
After HSSRC approval is given the student is granted PhD candidacy by the Office of Graduate Studies. The university requires that the Dissertation be completed not before 4 months or after 5 years of reaching candidacy status.

ENROLLMENT DURING CANDIDACY
After candidacy is granted, the student must continue to register for at least one credit of Dissertation Research, EMT 603, for each quarter through the term of graduation, and for not less than 27 credits of EMT 603 before the Dissertation Defense.

PUBLISHABLE PAPER
Before the Dissertation Defense, the Dissertation Committee documents that the student has produced at least one paper, based upon the dissertation research, suitable for inclusion in a refereed research journal. This documentation is made via an email from the PhD Advisor to the Program Coordinator.

DISSERTATION PRE-DEFENSE MEETING
When the student and the PhD Advisor determine that the Dissertation is ready for formal review, the student contacts the Program Coordinator for scheduling the Dissertation Pre-Defense meeting. All members of the Dissertation Committee should participate in the Dissertation Pre-Defense meeting.

At the Dissertation Pre-Defense meeting, the Committee determines whether the Dissertation is ready for formal defense. If the Dissertation is not ready for formal defense, the Committee decides when to meet again to review it. If the Dissertation is ready for formal defense, the student contacts the Program Coordinator for scheduling the Dissertation Defense.

SCHEDULING THE DISSERTATION DEFENSE
When the Dissertation Committee determines that the Dissertation is ready for defense, the student contacts the Program Coordinator, Becky Fidler<rfidler@pdx.edu> for scheduling the Dissertation Defense. Typically, the Dissertation Defense is held within 3-4 weeks after the Pre-Defense meeting. All members of the Dissertation Committee must participate in the Dissertation Defense. In unusual circumstances, a member may participate via telephone or video-conferencing.

ANNOUNCEMENT OF THE PUBLIC DEFENSE
The Program Coordinator will work with you to complete your announcement and, will send to all ETM faculty, students and PhD Doctoral Program Directors and Coordinators. Ideally, three weeks prior to scheduled defense.

PROVIDING THE COMMITTEE WITH COPIES OF THE DISSERTATION
The student provides the Dissertation Committee with copies of the full Dissertation no later than 2 weeks before the Defense.

EVALUATION OF THE DISSERTATION
The Dissertation Defense is evaluated on a Pass or No Pass basis. If the majority of the members give Pass grades, the student passes.

• If the Dissertation Defense is not successful, the Dissertation Committee recommends to the department Chair one of the following:
  o A course of action and a timeline for re-submitting the proposal (up to one year, but not to exceed the university’s deadline of no more than 5 years after candidacy is granted)
  o Termination of the student’s enrollment in the doctoral program

• If the Dissertation Defense is successful:
  o The student may need to make minor revisions and submit the revised Dissertation to the Committee for final approval
  o The student ensures that any outstanding Incomplete, In-Progress, or Missing grades are addressed
FINAL STEPS AFTER DISSERTATION APPROVAL

SUBMISSION OF RECOMMENDATION FOR THE DEGREE FORM
The PhD Advisor notifies the Program Coordinator, who submits to the Office of Graduate Studies the GO-17D, Recommendation for the Degree form no later than the last week of the term of graduation.

SUBMISSION OF MATERIALS TO OFFICE OF GRADUATE STUDIES
All graduate students who are doing a formal thesis or dissertation must follow PSU policies regarding committee appointments, defense procedures, formatting requirements, and submission procedures.

ETD Formatting Requirements

ETD Submission Instructions

ETD FAQs

Formatting Requirements
All theses and dissertations must meet OGS formatting requirements. We encourage students to review the formatting requirements early in the thesis or dissertation process; it is much easier to properly format the document to these specifications from the beginning as opposed to changing all the formatting when preparing for submission. The ETD Formatting Checklist is designed to help avoid the most common formatting errors, but it is not a substitute for carefully reviewing the formatting requirements.

Submission Procedures and Deadlines
All theses and dissertations are submitted electronically to OGS. For electronic thesis and dissertation (ETD) submissions, PSU uses the UMI ETD Administrator provided by ProQuest. Students will need to create an account through this system to submit their ETDs. We have created submission instructions for using the UMI ETD Administrator that guide you through the steps of creating an account and submitting your ETD.

ETD submission deadlines for the current academic year are available here; all ETDs are due by 5:00 p.m. Pacific Time on the applicable due date. A submission after these deadlines will result in graduation in a subsequent term.

There are two paper forms that students are required to submit to accompany their ETDs. Neither of these forms have specific due dates, but you should aim to submit them to OGS at approximately the same time you submit your ETD through the UMI ETD Administrator. You cannot be certified for graduation without OGS receipt of these completed forms.

- The Thesis Signature Page (for master’s students) and Dissertation Signature Page (for doctoral students) are used for your committee to formally approve the final, post-defense copy of your ETD.
- The ETD Access Form is used to grant the PSU Library the non-exclusive right to make your ETD available through our Digital Repository.

PhD students must also complete the online Survey of Earned Doctorates (EdD students do not complete the Survey). Please register and complete the survey at: https://sed.norc.org/survey. The registration process will ensure that you fill out the correct survey based on the graduation month and year you provide during the registration process. When you register for the survey, your pin and password will be emailed to you with a direct link to the survey so that you can return to the survey if you are not able to complete it all at one time. Once you have started the online survey, you can stop by pressing the "Save & Exit" button. This will save the data entered up to that point so that when you return to the survey it will resume at the screen where you left off. Once you have completed the survey, a confirmation email will be sent to OGS.
OGS will contact you after we have performed a formal audit of your ETD. Any required formatting revisions must be completed (and resubmitted through the UMI ETD Administrator) before you can be certified for graduation.

Doctoral students only: Please note that you cannot participate in the Spring PSU Commencement ceremony unless you have been certified for graduation by OGS. Again, we will be in touch.

**COPYWRITING THE DISSERTATION**
Copywriting the dissertation is optional, at additional charge. Forms are available in the Office of Graduate Studies.

**FINAL COPIES OF THE DISSERTATION FOR THE COMMITTEE**
A bound copy of the dissertation is given to each Committee member and the Ph.D. Program Coordinator no later than three weeks prior to graduation.

**APPLYING FOR GRADUATION**
Applications for Awarding a Master’s of Doctoral Degree are due to OGS by the first Friday of the term you plan to complete all degree requirements. You will see a $20.00 fee once application has been processed.

For more information, please visit: [http://www.pdx.edu/ogs/application-awarding-masters-or-doctoral-degree/](http://www.pdx.edu/ogs/application-awarding-masters-or-doctoral-degree/)

**PARTICIPATING IN COMMENCEMENT**
If you wish to participate in the University Commencement ceremony, s/he can register at the time s/he submits” Application for Awarding Master’s Doctoral Degree”. (Information is at the bottom of form)

More information about PSU’s commencement by visiting: [http://www.pdx.edu/commencement/](http://www.pdx.edu/commencement/)

In addition to PSU’s Commencement, The Department of Engineering and Technology Management will host our annual “Commencement” for all students that have graduated or will be graduating between Fall and Summer terms. More information will be sent via email in Mid-May.

**MISSING THE DISSERTATION SUBMISSION DEADLINE**
A student who misses the Dissertation Submission deadline may graduate in the following term without registering for that following term if she/he submits the completed, defended, approved, and properly formatted dissertation no later than 5:00 P.M. on the deadline posted on the website of the Office of Graduate Studies.
List of Hyperlinks

Department of Engineering and Technology Management
www.pdx.edu/engineering-technology-management/

Maseeh College of Engineering and Computer Science
http://www.pdx.edu/cecs/

University Application for Graduate Admission
http://www.pdx.edu/admissions/graduate-applicant

Departmental Application for Admission
www.pdx.edu/engineering-technology-management/online-application

PSU Bulletin
http://www.pdx.edu/oaa/psu-bulletin

Office of Graduate Studies (OGS)
http://www.pdx.edu/ogs/

OGS forms
http://www.pdx.edu/ogs/forms

Graduate Council Petition

ETM Online Forms
www.pdx.edu/engineering-technology-management/phd-forms

Guidelines for Research Involving Human Subjects
https://sites.google.com/a/pdx.edu/research/integrity/human-subjects

OGS Electronic Dissertation Information

OGS Funding (Graduate Assistantships, Scholarships & Awards)
http://www.pdx.edu/ogs/funding

PSU Office of Equity and Compliance
http://www.pdx.edu/diversity/office-of-equity-compliance
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www.pdx.edu/engineering-technology-management/phd-in-technology-management