



Coastal and Ocean Engineering Student Rules and Procedures

November 15, 2019

This document provides guidance to graduate students in the coastal and ocean engineering programs. The graduate handbook (catalog.udel.edu) is the formal document with this document providing extra information, advice and guidance.

Degree Options

<u>MASTER'S DEGREES: THESIS OPTION</u>		<u>MASTER'S DEGREES: NON-THESIS OPTION</u>	
OVERVIEW	ELIGIBILITY	OVERVIEW	ELIGIBILITY
<p>(M.C.E.) Master of Civil Engineering: concentration in Coastal Eng. - requires 30 credits (24 course credits and 6 thesis credits)</p> <p>(M.A.S.) Master of Applied Science: concentration in Coastal Engineering - requires 30 credits (24 course credits and 6 thesis credits)</p> <p>(M.S.) Master of Science in Ocean Engineering - requires 30 credits (24 course credits and 6 thesis credits)</p>	<p>A bachelor's degree in engineering is required for this program, with a min. GPA of 3.0.</p> <p>For students who have earned a bachelor's degree in a non-engineering field, with a min. GPA of 3.0.</p> <p>A Bachelor of Science in engineering is required for this program, with a min. GPA of 3.0.</p>	<p>(M.C.E.) Master of Civil Engineering: concentration in Coastal Eng. - requires 30 course credits</p> <p>(M.A.S.) Master of Applied Science: concentration in Coastal Engineering - requires 30 course credits</p>	<p>A bachelor's degree in engineering is required for this program, with a min. GPA of 3.0.</p> <p>Students who have not earned a bachelor's degree in engineering apply to this program, with a min. GPA of 3.0.</p>
<u>Ph.D. DEGREES</u>			
OVERVIEW	ELIGIBILITY		
<p>(Ph.D.) Doctor of Philosophy - Civil Engineering: concentration in Coastal Engineering (72 credits required or 42 with earned master's degree in engineering)</p>	<p>A bachelor's degree in engineering with a min. GPA of 3.5 OR a master's degree in engineering with a min. GPA of 3.0</p>		

(Ph.D.) Doctor of Philosophy in Ocean Engineering (72 credits required or 42 with earned master's degree in engineering)	A bachelor's degree in engineering with a min. GPA of 3.5 OR a master's degree in engineering with a min. GPA of 3.0
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Doctoral Committee

The selection of prospective members of the Doctoral Committee is discussed by the student and his/her advisor. The committee must consist of no less than four members with a minimum of two being from the student's study area. The advisor represents one these two. One of the remaining members can be from a secondary area of study if applicable. The fourth member must be from outside the department and can be from outside the university. Additional committee members (if applicable) can be from within or outside the major area of study. The student and members fill out the form (presently located at <https://www1.udel.edu/gradoffice/polproc/gradforms.html>) and submits the form to the Office of Graduate and Professional Education. Changes in the composition of the committee to reflect the student's interests can be made, following advisor approval, using a change of committee form.

The student shall consult each member of the Doctoral Committee at least six weeks before the qualifying exam for advice on any specific preparation for the qualifying exam. Any committee member who is not fully satisfied with a student's preparation for the qualifying exam will advise the Doctoral Committee chairperson promptly.

Qualifying Exam

Purpose

The qualifying exam is administered to establish if a student has sufficient intellectual ability, sufficient motivation, and adequate understanding of the fundamentals to successfully complete the requirements of the Ph.D. program. The exam is meant to test a student's breadth and depth of knowledge in areas relevant to the program as identified through their course work. The exam is also meant to determine the student's ability to apply the fundamental knowledge gained through course work to address more difficult/advanced questions, perhaps multidisciplinary in nature. Students may be questioned on their ability to formulate research hypotheses and describe/explain the formulation of a research plan to address those hypotheses.

The exam is not open to the public.

No qualifying exam is required for the Master's degree

Planning to Take the Qualifying Exams

A student in their 2nd year should consult with his/her advisor on the appropriate time to take the exam (usually in the early spring or early fall semester). The student must prepare a resume and a dissertation proposal and provide them to the committee at least 6 weeks in advance of the exam.

Qualifying Exam - Overview

The qualifying exam is a comprehensive written and oral exam. It is administered in two sections, typically two weeks apart, to test the student's preparation and the aptness of the proposed research. The advisor, as the Chair for the Doctoral Committee, administers the written exam and chairs the oral exam. The student is certified as a candidate for the doctorate degree upon successful completion of the qualifying exam. Committee members sign the

Recommendation for Candidacy Form if the exam is passed successfully. The student then registers each subsequent semester as sustaining until the dissertation is completed.

Requirements:

- All doctoral students must take the exam.
- Students must complete roughly 36 credits of coursework beyond the bachelor's degree.

The Proposal

- Students write a scientific/engineering proposal related to the research they plan to conduct for their dissertation
- The proposal format should be discussed with the advisor with one option being an NSF-style proposal
- The proposal must contain sufficient background material to indicate knowledge in the subject area, identify gaps/needs in the research and how the student plans to address those gaps/needs

Written Examination

- Each candidate must exhibit both fundamental and advanced understanding of his/her research area.
- The written exam has the following format:
 - Each committee member provides an exam to the Chair of the Doctoral Committee
 - The student and the advisor decide on the order the exams will be taken
 - Each exam shall be no longer than 24 hours in duration
 - Each examiner informs the Chair as to the protocol for exam (open notes, open book, closed notes etc)
 - Each committee member receives the student's answers to their exam
 - Committee members grade their exam within one week and provide to the Chair the results and areas of concern
 - The results and areas of concern are provided to the student

Oral Examination

- The oral exam is administered roughly two weeks after the written exam and provides an opportunity for the student to present their research plan and explore the responses to the written exam in more detail. The duration of the exam is roughly two hours.
- The oral examination has the following format:
 - The student presents a brief summary of his or her background in terms of education and relevant experience, their research plan and timeline to complete the research plan including publications and conference presentations (typically 45 minutes).
 - Each member takes turns asking questions regarding the research proposal, presentation and/or written exam
 - The student may be asked several rounds of questions from committee members
 - The student is asked to leave the room to allow for deliberations among committee members once questioning has ended
 - After deliberation, the Chair invites the student back to the room to convey the results

Results of the Examination

The qualifying exam (written and oral) may result in one of the following actions for a student:

- a. Passed. The candidacy form is signed by all committee members.

b. Passed, but additional work required (self-study or formal course). The candidacy form is signed by all committee members. If the qualifying exam committee recommends passing but with additional study or course work, the Chair of the Doctoral Committee will ensure that the student meets these recommendations promptly.

c. Failed, but to be offered a second complete exam after, in most cases, one semester of additional preparation; memo of record from advisor via the Department Chairperson to the Office of Graduate Studies. If unsuccessful a second time, the student will not be permitted a third attempt. The candidacy form is signed by all committee members and matriculation in the program will be ended.

d. Failed, no re-examination. The candidacy form is signed by all committee members and matriculation in the program will be ended.

Ph.D. Defense (final oral examination)

A student that has completed required coursework and passed to candidacy will defend their dissertation when agreed upon with their advisor that sufficient original research has been completed. The amount of time to reach this stage varies for candidates but could range from 3 to 7 years. The student will write a dissertation in accordance with the rules/guidelines provided by the Office of Graduate and Professional Education. The written dissertation must be provided to all committee member no less than two weeks prior to the scheduled defense date.

The procedure is:

- The candidate gives a presentation on the dissertation research and findings (typically 45 minutes).
- An intensive questioning by the Doctoral Committee and all others present takes place after the presentation. The examination is not merely a defense by the student of the dissertation but may also include a review of the student's competence and comprehension in related fields. After the questioning is completed, the meeting is closed to everyone except the committee members, who render their vote.
- Upon successful completion of this examination and compliance with any necessary revisions of the dissertation, the candidate will be certified by the Doctoral Committee for conferral of the degree by completion of the Certification of Doctoral Dissertation Defense form.
- In the case where the Final Oral Examination is not passed, the candidate will be allowed to appear for a second trial after the lapse of at least six months. If unsuccessful in a second trial, the candidate will not be permitted to take a further examination and will be terminated from the program.