

PhD proposal guidance

This document provides guidance for the PhD candidate. The student should develop their proposal plans in consultation with their primary thesis advisor.

A. Objectives

The objective of the PhD dissertation proposal defense is to provide an early opportunity for the PhD thesis committee, research advisor, and PhD candidate to review the proposed research for the purposes of ensuring that:

- A scientific/engineering question has been identified which will significantly advance the state of knowledge
- Research methodology and the appropriate experimental, theoretical, and/or computational techniques are identified to address the research question
- The depth and breadth of scientific/engineering rigor employed will result in important contributions to the scientific and engineering literature
- It is anticipated that the amount of research proposed can be completed to enable successful PhD completion in five years or less from the date of entering the PhD program (four if entering with a Master's degree)

B. Timeline

The proposal defense should be completed six months to one year after passing the PhD qualifying exam. The timeline entails:

- PhD candidate and research advisor identify members of the thesis committee and ensure they are available at the planned date of the proposal presentation. The thesis committee is typically composed of five members including
 - The research advisor (required)
 - One UVA faculty member from outside the MSE department, with approval of the Dean's Office (required)
 - Three other committee members (required), typically from the MSE department, or one external topical expert with the approval of the Dean's Office
- Proposal document (Part C below) is provided to the committee one week before proposal presentation
- Proposal presentation and defense is described in Part D below
- If the proposal is not completed within one year of successful completion of the PhD qualifying exam, the graduate student director contacts both the PhD candidate and the research advisor to establish a date for the proposal and to identify/remedy any significant issues that prevent successful completion of the PhD research proposal defense

C. Document

The complete proposal document shall be double spaced and shall not exceed thirty pages (excluding title page, table of contents, and references). This requirement is typical of proposals faculty submit to funding agencies, e.g. 15 pages single spaced. The proposal document shall contain:

1. The current state of knowledge from a review of the literature and a concise statement of the scientific/engineering question/objectives
2. Summary of preliminary work completed towards the PhD dissertation demonstrating success of research approach
3. Proposed research planned for completion of PhD dissertation
4. A timeline for completion of research objectives and defense

D. Presentation and follow-up

- A presentation not to exceed one hour will be made which addresses the four points outlined for the proposal document in Section C
- The proposal presentation and examination are open to all interested parties
- Each committee member, including the research advisor, may ask up to 20 minutes of questions based on the proposal document and presentation to ensure the objectives stated in Section A can be met
- The committee, with consensus of the research advisor, provides advice to the PhD candidate for successful completion of the dissertation.
- The PhD candidate is encouraged to meet with their committee informally through the course of the completion of their dissertation for continued advice, with any research plans made in coordination with the primary research advisor.