

PhD in Computer and Statistical Science
(Statistics Concentration)

Comprehensive exam process

Program Overview

- The first formal requirement for the Ph.D. degree is passing the Ph.D. Qualifying Examination which is a written test on certain basic courses.
- The second requirement is passing the Comprehensive Examination which consists of a written test on the thesis proposal and its defense and an oral test on the advanced statistics topics that are related to the thesis proposal.
- The preparation of a dissertation then follows which must present an original contribution to the general area of Statistics and/or Probability.
- The final requirement is to defend the Ph.D. dissertation before an audience of interested members of the Department.

The Department expects every Ph.D. candidate to strive to finish their study within **four** years. For students arriving without an M.S. degree in Mathematics or Statistics, the Department typically provides up to **four years of financial support** and the comprehensive exam should be taken no later than the end of the **sixth semester**. For those arriving with such a degree, the Department typically provides up to **three years of financial support** and the comprehensive exam should be taken no later than the end of the **fifth semester**.

Each doctoral student shall take comprehensive examinations at or near, but no later than twelve months after completion of the formal courses stipulated in the Program of Study.

This document outlines the requirements and structure of the comprehensive exams for the PhD program in Statistics.

Exam Requirements

1. Eligibility

- Candidates must complete the qualifying exam before taking the comprehensive exams.
- Demonstrate evidence of substantial project investigation and progress beyond the literature review, including preliminary results such as simulation findings, theoretical derivations, and other relevant analyses. For example, this may include the completion of one chapter of the Ph.D. thesis.

2. Exam Components

The comprehensive exams consist of the following components:

- A Written Exam of Thesis Proposal
- An Oral Exam consisting of the Defense of the Proposal and answers about Advanced Statistics Topics

Committees

1. The doctoral program committee is composed of:

- the candidate's major (and co-major) advisor(s),
- **one internal faculty member**, excluding the candidate's major and co-major advisors, and
- **one external faculty member** from an outside area, unless specifically approved otherwise by the Dean of the Graduate School.

2. The oral comprehensive exam committee is composed of the doctoral program committee and

- **one additional internal faculty member** and
- **one additional external faculty member** from the Graduate Faculty, who is intended to be an impartial representative of the Graduate Faculty present at the oral comprehensive exam to ensure a fair exam that follows procedures and policies.

Note: All committee members should be approved by the candidate's thesis advisor(s).

Exam Format

1. Written Section

- Once the thesis proposal is written and approved by their major (and co-major) professor(s), the candidate should circulate the thesis proposal to all members of the **doctoral program committee**.
- The dissertation proposal will normally be similar to that required by the Graduate School.

Note: Unanimous approval by all members of **the doctoral program committee** is required for passing.

2. Oral Section

- The oral comprehensive examination shall be given only after passing and normally within four weeks following successful completion of the full written examination.
 - The duration of the oral comprehensive exam will be approximately 120 minutes:
 - Approximately 60 minutes for the thesis proposal presentation and related questions
 - Approximately 60 minutes for technical questions related to the topics of the thesis proposal.
- The thesis proposal session will be conducted by **the oral comprehensive exam committee**. They will ask questions related to the thesis proposal and relevant literature related to the thesis proposal research.
- The technical questions session will be conducted by **the two internal faculty members** (excluding the candidate's major (and co-major) advisor(s) and the external faculty members). They will ask questions on the fundamental statistical methodologies and the theory related to the thesis to assess the candidate's depth of understanding of the topic.

Note: Unanimous approval by all members of the **oral examination committee** is required for passing.

Note: The oral exam chairperson chairs the oral part of the exam. The oral exam committee then determines if the candidate has passed their oral part of the comprehensive exams based on the presentation and their performance in the technical questions session of the oral exams.

Note: When a PhD candidate has successfully passed their comprehensive exam, the major professor should go to the graduate school forms page at: <https://web.uri.edu/graduate-school/forms/>, click on the “Faculty Results” tab and fill out:

“Results of a Written Doctoral Comprehensive Examination” form. This form is signed by the PhD committee. This form will be processed before the Oral exam. The order is important.

“Results of an Oral Doctoral Comprehensive Examination” form. This form is signed by the PhD committee of the candidate AND the oral exam chair.

The candidate is not involved in handling these comprehensive exam results forms. It’s entirely under the major professor and the committee’s purview.