

PhD in Computer and Statistical Science
(Statistics Concentration)

Qualifying exam process

Purpose:

The Ph.D. qualifying exam is required for **all** students pursuing a Ph.D. in Computer and Statistical Science with a concentration in statistics, aiming to evaluate the depth of understanding and mastery of both theoretical concepts and methods covered in the required courses.

Exam Schedule

Effective January 2026, exams will be conducted twice a year as follows:

- **January**
- **May**

Each exam consists of two parts, spans two half-days, and is conducted in person and under closed-book conditions, scheduled as follows:

- **Method exam** covers regression analysis, Bayesian analysis, and categorical data analysis: 9 a.m. - 12 p.m.
- **Theory exam** covers applied probability theory and advanced statistical inference: 9 a.m. - 12 p.m.

General Rules

1. Only students currently enrolled in the graduate programs of the Department are permitted to sign up and take the exams.
2.
 - Candidates with master's degree in statistics/mathematics are strongly encouraged to **pass** their qualifying exam within **two** semesters of starting their Ph.D. program.
 - Candidates with only bachelor's degree are strongly encouraged to **pass** their qualifying exam within **three** semesters of starting their Ph.D. program.

Failure to pass the qualifying exams on time may result in the cancellation of the graduate assistantship for the upcoming semester.

3. The candidate must pass the Ph.D. qualifying exam within two consecutive attempts. For example, if a candidate takes the exam for the first time in January and does not pass, they have one remaining attempt in May. Failure to sign up or to appear for an exam counts as a failed attempt.
4. The candidate must pass both the method and theory parts of the exam. If a candidate fails one part, they only need to register for that part in subsequent attempts.

Rules for Ph.D. Candidates

1. Each Ph.D. candidate is allowed two attempts to pass the Ph.D. qualifying exam.
2. Candidates are suggested to complete the following five courses before their first attempt:
 1. Regression Analysis
 2. Bayesian Analysis
 3. Categorical Data Analysis
 4. Applied Probability Theory, and
 5. Advanced Statistical Inference.
3. Each sign-up counts as an attempt, regardless of whether the candidate later withdraws, fails to appear, or takes only one part of the exam. Instances of non-compliance with attendance requirements that are attributable to documented emergency conditions shall be subject to separate review and determination by the graduate committee.

Additional Rules for MS Students

To switch to the Ph.D. program, an MS student must first pass the Ph.D. qualifying exam. Reapplication to the Ph.D. program is subject to a thorough review by the Graduate Admissions Committee, adhering to the same standards as all applications.