Qualifying Exam in the Interactive Computing Area
(2021)

Overview

The qualifying exam for the Interactive Computing (IC) Area is a two-part written and oral exam. In the written part of the exam the candidate discusses and critiques a set of research articles chosen by a combination of the candidate, the adviser, and the qualifying exam committee faculty. The written critiques are to be submitted to the committee no later than 1 week prior to holding the second, oral part of the exam. In the 2-hour oral portion of the exam, the exam committee will discuss and evaluate the candidate's documented academic progress, the written portion of the exam submitted for part one, and question the candidate on the assigned papers, related research topics and themes, and the critiques provided by the candidate.

We focus here on rules for the IC area; these extend the rules of the Computer Science Department, which are documented here.

Qualifying Exam Statement

By department rules the candidate submits a **qualifying exam statement** about their research interests via the online qual exam portal. A qualifying exam statement for the IC area consists of a description of no more than one page in length describing the candidate's research interests, accomplishments, and plans for future research; in addition to any other criteria required by the department.

Committee Assignment

Based on the qualifying exam statement submitted by the candidate, the IC **area chair** will appoint a **qualifying exam committee** of three faculty members, one of whom will be designated as committee **chair**. The committee will exclude the student's adviser, and can be composed of both core and affiliated members of the IC faculty: https://cs.illinois.edu/research/areas/interactive-computing.

Exam

The qualifying exam committee will work with the candidate, the candidate's advisor, and the qualifying exam committee to finalize a set of three research articles to serve as the basis for the qualifying exam. By working with the adviser and exam committee, the chair will first identify a set of four candidate research articles published in reputable IC-area conferences and other outlets that are deemed appropriate to test the candidate's breadth and depth of knowledge in the IC area.

The candidate will be presented with the four articles and asked to select either a) three; or b) two with an additional article provided by the candidate, pending approval of this third article by the exam committee to serve as the final set of three articles for the exam. The final paper selection must be completed no later than 14 days prior to the exam date.

The candidate should work with the exam committee to schedule a 2-hour date and time for the second, oral portion of the qualifying exam. Either co-located or distance-based administration of this portion using audio and video is acceptable until otherwise noted. During the exam the research articles will serve as the initial focus for Q&A between the committee and the candidate, although questions based on any relevant IC- and CS-related topics are appropriate. The oral portion of the exam is limited to a maximum of two hours.

After the student is dismissed the exam committee will discuss the candidate's performance, vote on the outcome, and the committee chair will report the judgment of the committee using the CS Graduate Studies Qualifying Exam webpages. All students taking the exam in a given semester will be informed by the Graduate Studies Office of their exam outcome by approximately the same date.

Criteria for Passing the Exam

In general, candidates are expected to understand key IC-relevant concepts spanning theory, methods, design and scholarship in their specialized areas of interest well enough to explain, use, and critique them. Candidates are expected to demonstrate breadth on a related yet broader set of IC- and CS-relevant topics. These concepts include (but are not limited to) user interface design, graphics, and visualization; software engineering; quantitative and qualitative research methods; and cognitive and social psychology.

Timetable

- The CS academic office sets a timetable of milestones. Consult with them or the IC area chair if you have questions.