

D.Sc. Comprehensive Examination Guidelines

The objective of the D.Sc. comprehensive examination is to assess the student's knowledge of information systems literature, particularly in their area of specialization and as well as their understanding of information systems research methods and ability to conduct research and evaluate research results. The comprehensive exam is a significant milestone towards determining the students' readiness to undertake independent research.

The comprehensive examination will consist of the following components:

- A. Written comprehensive course exam
- B. Oral comprehensive course exam

Prerequisites

- Students should have completed the MSIS core or equivalent courses
- Students should have completed 9 credits of coursework in one of the following research specializations:
 1. *Decision support, data, and knowledge management*
 - INFS 830: Decision support systems (3 credits)
 - INFS 834: Knowledge management (3 credits)
 - INFS 838: Decision support and knowledge management research (3 credits)
 2. *Information assurance and computer security*
 - INFA 711: Computer security planning and procedures (3 credits)
 - INFA 713: Managing information security risk (3 credits)
 - INFS 838: Information assurance and computer security research (3 credits)
 3. *Health information systems*
 - INFS 742: Healthcare information infrastructure (3 credits)
 - INFS 744: Healthcare information analysis (3 credits)
 - INFS 868: Health informatics research (3 credits)
- Students should have completed 9 credits of research methodology coursework, as follows:
 1. INFS 805: Design science research methods (3 credits)
 2. INFS 810: Qualitative research methods (3 credits)
 3. INFS 815: Quantitative research methods (3 credits)
- Students should have completed 3 credits of research seminar (INFS 890)

A. Written comprehensive course exam

Structure

The written comprehensive course exam will consist of 6 sections, each of 100 points (total points: 600), based on the 3 research specialization courses and 3 research methodology courses mentioned in the comprehensive exam prerequisites. Each section may contain multiple questions. The exam on each section will test the readiness of the students to undertake independent research and thus may be significantly different than the corresponding course exam.

The examination will be open book, open notes. Students will have the flexibility of distributing their time and effort on each section during the overall test period. Email or other such mechanism will be used for sending and receiving the exam.

Timeline

Students must schedule their written comprehensive course exam no earlier than the semester in which they will be completing the prerequisites for the comprehensive exam.

The written comprehensive course exam will be held twice a year. It will be scheduled on the weekend following the finals week for the Fall and Spring semesters, starting on Friday at 5:00 p.m. and due on the following Monday at 8:00 a.m. No written comprehensive course exam will be scheduled in the summer semester. The results of the written comprehensive course exam will be provided to the students in 3 weeks following the exam.

Evaluation

The written comprehensive course exam will be evaluated by an examination committee. Students will be given a pass/fail grade on each section. Students passing all the sections of this exam would be considered as an overall pass in the written comprehensive course exam. If a student fails one or more sections, he/she may re-take the exam for that section in the following semester or when it is offered the next time. There will be a maximum of 2 attempts for appearing for the exam for each section. Failing to successfully pass each of the sections (with a maximum of 2 attempts per section) will result in not advancing towards the D.Sc. degree.

B. Oral comprehensive course exam

Structure

The oral comprehensive course exam complements the written component of the exam. The comprehensive exam committee members will ask questions based on the student's coursework on research methodology and research specialization and may ask the student to comment on their answers in the written comprehensive exam.

Timeline

The exam will be held within two weeks from completing the written comprehensive exam. The Office of Graduate Students and Research in conjunction with the exam committee will schedule the exam for individual students.

Evaluation

The oral comprehensive course exam will be evaluated by the comprehensive examination committee based on the student's fundamental and applied knowledge about the issues covered in the research methodology and research specialization courses. Students will be given a pass/fail grade for this component. Failing to successfully pass these components (with a maximum of 2 attempts per component) will result in not advancing towards the D.Sc. degree.

Overall Evaluation

Students passing both components of the comprehensive exam will be considered as an overall pass. There will be a maximum of 2 attempts for any of the components.