

Computer Science, PhD

College of Engineering

Graduate Coordinator: Huiming (Anna) Yu **Email:** cshmyu@ncat.edu Phone: 336-285-3699

Department Chair: Xiaohong (Dorothy) Yuan **Email:** xhyuan@ncat.edu Phone: 336-334-7245

The Ph.D. program in Computer Science presents both advanced instruction and opportunities for independent research. The Ph.D. degree is the highest academic degree offered, and graduates typically find employment as researchers in government or industry laboratories or as university faculty. Earning a Ph.D. degree requires initiative and responsibility, and the student is expected to make a significant contribution to computer-science knowledge by investigating a topic that is recognized as significant.

Additional Admission Requirements

- Bachelor of Science in computer science with a minimum GPA of 3.5 over the last 60 course credit hours of the undergraduate degree or Master of Science degree in Computer Science with a minimum GPA of 3.25.
- GRE test scores

Program Outcomes

- Graduates of the Ph.D. program will conduct advanced research in such computer science areas as information security, distributed systems, and artificial intelligence.
- Graduates will develop the ability to identify research problems in computer science and to develop solutions for them.
- Graduates will develop the ability to address important computing problems from a variety of areas, including business, the environment, the State's economy, healthcare, and law enforcement.
- Graduates will develop the ability to examine certain grand challenge problems in the discipline.
- Graduates will acquire the skills and abilities to be effective educators in computer science at the university level.

Degree Requirements

Total credit hours: 63 (post baccalaureate)

- Core courses (9 credits): COMP 710, 755, 775
- COMP electives (24 credits): Take 24 credits of additional COMP 700-899 courses with approval of advisor
- Electives (6 credits): Take 6 credit hours from COMP 700-899 or other departments with approval of advisor
- Take 6 credit hours: COMP 892, 994
- Dissertation (18 credits): COMP 997
- Pass qualifying exam, preliminary exam, dissertation defense

Dissertation Research:

A student may not register for dissertation credits before passing Qualifying Examination. No more than 18 dissertation credits are counted toward the total credit hours requirement for the degree.

Qualifying Examination:

The Qualifying Examination is given to assess the student's competence in a broad range of relevant subject areas. Only students with unconditional status and in good academic standing may take the Qualifying Examination. A student who wants to retake the Qualifying Examination must apply to retake the Qualifying Examination by the posted deadline. No student is permitted to take the Qualifying Examination

more than twice. A student not recommended for re-examination or who fails the exam on a second attempt may be dismissed from the doctoral program.

Preliminary Oral Examination:

The Preliminary Oral Examination is conducted by the student's dissertation committee and is a defense of the student's dissertation proposal. Passing this exam satisfies requirements for Ph.D. Candidacy. Failure on the examination may result in dismissal from the doctoral program. The student's Advisory Committee may permit one re-examination. At least one full semester must elapse before the re-examination. Failure on the second attempt will result in dismissal from the doctoral program.

Admission to Candidacy

Student will be admitted to candidacy upon successful completion of the Qualifying Exam and the Preliminary oral Exam.

Final Oral Examination:

The Final Oral Examination is conducted by the student's dissertation committee. This examination is the final dissertation defense presentation that is scheduled after a dissertation is completed. The examination may be held no earlier than one semester (or four months) after admission to candidacy. Failure on the examination may result in dismissal from the doctoral program. The student's Advisory Committee may permit one re-examination. At least one full semester must elapse before the re-examination. Failure on the second attempt will result in dismissal from the doctoral program.

Submission of Dissertation:

Upon passing the Ph.D. Final Oral Examination, the Ph.D. student must have the dissertation approved by each member of the student's dissertation committee. The approved dissertation must be submitted to The Graduate College by the deadline given in the academic calendar, and must conform to the Graduate College's guidelines for theses and dissertations.