

# Ph.D. in Computer Science

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## GPA, Course and Program Milestone Requirements

Students must maintain a Cumulative GPA of at least 3.5 at all times after accumulating 9 credits, with no individual grades lower than B.

Students who start the program with a recognized Master's degree in Computer Science or related areas are required to take six 3-credit courses (18 credits) at either the 600 level or 700 level, of which four 3-credit courses (12 credits) must be at the 700 level.

Students who start the program with a recognized Baccalaureate degree are required to take eight 3-credit courses (24 credits) at either the 600 level or 700 level, as well as four additional 700-level 3-credit courses (12 credits), for a total of twelve 3-credit courses (36 credits).

All students must choose 18 credits of the required courses from sections designated as *doctoral sections*. A doctoral section is a section of a graduate-level course designated as such by the PhD committee. 700-level courses are always automatically considered doctoral sections.

At most 6 credits can be Independent Study in Computer Science (CS 725 and/or CS 726). If a student takes two Independent Study courses, then they should be done with two different professors. At least 6 credits must be for lecture-based courses at the 700 level. The student's research advisor and dissertation committee may ask the student to take additional courses, usually before the Qualifying Exam, but possibly also after the Qualifying Exam.

In addition, students must also comply with the Ph.D. Credit Requirements and milestones (including the PhD Research Proposal Defense and the PhD Dissertation Defense), which are described at: <https://www5.njit.edu/graduatestudies/content/new-phd-credit-requirements/> (<https://www.njit.edu/graduatestudies/content/new-phd-credit-requirements/>)

## CS 791: Doctoral Seminar

Full-time students are required to enroll in CS 791 every semester. *Full-time PhD students are required to attend 2/3 of the weekly Wednesday departmental seminars.*

## Qualifying Examination: Research Presentation and Written Report Requirement

To qualify as a PhD candidate, a student's research potential is assessed through a Qualifying Exam, which must be completed within two years from the time the student starts the Ph.D. program. The Qualifying Exam evaluates the student's technical ability and oral and written communication skills, and consists of two components based on research supervised by their advisor: 1) Written Research Report, 2) Oral Research Presentation. The presentation must be based on the research report.

The faculty research advisor will propose a Qualifying Exam Committee (QEC) of three tenure-track NJIT faculty members, at least two of whom have their primary appointment in Computer Science. The QEC members should have research experience or should be developing research interests related to the student's research topic. The faculty research advisor(s) cannot be a member of the QEC.

The Oral Research Presentation will have a public portion of no more than 45 minutes (excluding questions) followed by a closed session with only the student and the QEC (the research advisor(s) cannot be present during the closed session). Each QEC member will evaluate the presentation and the written report by completing a rubric and by giving one of the following grades: Pass, Neutral, Fail. At least two Passes, and no Fails, are required for the successful completion of the requirement. The research advisor must make sure that the QEC decision is communicated to the PhD committee no later than one week after the Qualifying Exam; this includes ensuring that the QEC provides a letter explaining the specific reasons for Neutral or Fail votes.

The student will be allowed at most two chances to take the Qualifying Exam. Normally, it is expected the QEC composition remains the same for a retake. However, with the research advisor's justification, a new committee can be appointed for a retake, which must have at least one member in common with the previous committee. When scheduling a retake, the research advisor must provide the previous-decision letter to the new QEC.

A student who does not pass the Qual Exam before the end of the second year will be referred to the PhD committee to be considered for dismissal from the program.

## PhD Student Semi-annual Evaluation

The student's progress on program requirements and research is assessed by the departmental PhD Committee each semester.

## Student Standing and Dismissal

If a student fails to satisfy any of the program's requirements, then they may be dismissed from the program. All decisions related to a student's standing in the program are made by the PhD committee in consultation with the student's research advisor, and are communicated to the student.