## Doctor of Philosophy in Computer Science

## Admission Requirements

- Master's degree, normally in an engineering or science related field with an overall graduate GPA of at least 3.0 (on a 4.0 scale), or a Bachelor's degree, normally in an engineering or science related field with an overall undergraduate GPA of at least 3.0 (on a 4.0 scale) and the Graduate Record Examination General Test.
- 2. Prerequisites:
  - Expertise in a high level programming language and a basic knowledge of data structures.
  - Basic knowledge of formal languages, automata, and computability.
  - · Basic knowledge of computer architecture or operating systems.
  - Basic knowledge of calculus, statistics, and linear algebra.
- Satisfy the School of Graduate Studies' English Language Proficiency requirements as listed in the Graduate Academic Information section.

The School of Electrical Engineering and Computer Science recognizes that the prerequisite expertise identified above may be acquired in a variety of ways. Students who do not meet all of the requirements may be admitted with qualified status with the obligation to meet the remaining requirements early in their graduate study.

## **Degree Requirements**

Students seeking the Doctor of Philosophy in Computer Science degree must satisfy all general requirements set forth by the School of Graduate Studies. In addition, they must meet the following requirements set by the School of Electrical Engineering and Computer Science:

- 1. Degree requirements for students with an approved Master degree:
  - Complete a minimum of 24 credit hours of CSCI 999 Dissertation Research
  - Complete a minimum of 15 credit hours of EE, CSCI, DATA, or EECS graduate level coursework
  - Complete 3 credit hours of EECS 500 graduate seminar with a passing grade
  - Complete 18 credit hours of elective credits that consists of any combination of additional courses and/or additional Research credits as approved by the student's Faculty Advisory Committee.
  - Form a Faculty Advisory Committee in the first semester in the program. The chair of this committee must be approved by the School of Electrical Engineering and Computer Science Graduate Committee.
  - Successfully complete the Graduate Qualifying Examination (GQE) consisting of a thorough review of a selection of publications that are relevant to the student's research area and assigned by their Faculty Advisory Committee. The GQE should be completed after the student has completed at least 18 credit hours of doctoral study, but prior to the completion of 27 credit hours.
  - Successfully complete the Comprehensive Examination consisting of both the written proposal and an oral defense. The comprehensive examination should be completed after the student has completed at least 36 credit hours of doctoral study, but prior to the completion of 45 credit hours.
  - Oral Final Examination which includes a defense of the student's dissertation. The oral defense of the student's dissertation must take place at least one semester after satisfactory completion of the comprehensive examination.
  - Submission of the dissertation document, approved by the student's Faculty Advisory Committee.
  - At least two high quality peer reviewed journal articles and two peer reviewed conference papers, as the first author, must be submitted

for publication. These manuscripts must be submitted with the consent of the student's academic advisor.

- 2. Degree requirements for students with an approved Bachelor degree:
  - Complete a minimum of 36 credit hours of CSCI 999 Dissertation Research
  - Complete a minimum of 30 credit hours of EE, CSCI, DATA, or EECS graduate level coursework
  - Complete 3 credit hours of EECS 500 with a passing grade
  - Complete 21 credit hours of elective credits that consists of any combination of additional courses and/or additional Research credits as approved by the student's Faculty Advisory Committee.
  - Form a Faculty Advisory Committee in the first semester in the program. The chair of this committee must be approved by the School of Electrical Engineering and Computer Science Graduate Committee.
  - Successfully complete the Graduate Qualifying Examination (GQE) consisting of a thorough review of a selection of publications that are relevant to the student's research area and assigned by their Faculty Advisory Committee. The GQE should be completed after the student has completed at least 36 credit hours of doctoral study, but prior to the completion of 45 credit hours.
  - Successfully complete the Preliminary Exam consisting of both the proposal document and an oral defense of this proposal. The comprehensive examination should be completed after the student has completed at least 63 credit hours of doctoral study, but prior to the completion of 72 credit hours.
  - Oral Final Examination which includes a defense of the student's dissertation. The oral defense of the student's dissertation must take place at least one semester after satisfactory completion of the comprehensive examination.
  - Submission of the dissertation document, approved by the student's Faculty Advisory Committee.
  - At least two high quality peer reviewed journal articles and two peer reviewed conference papers, as the first author, must be submitted for publication. These manuscripts must be submitted with the consent of the student's academic advisor.