

**Annual Academic Assessment Report**  
**Department of Electrical Engineering and Computer Science**  
**Ph.D. in Computer Science**  
**June 2024**

**I. Student Learning Outcomes**

The Ph.D. in Computer Science student learning outcomes are identified as CS1 through CS5:

- CS1. Identify and formulate a research-related problem, complete a literature search related to the problem, generate and analyze results, and develop and defend a proposal project plan.
- CS2. Contribute to the body of knowledge in computer science.
- CS3. Demonstrate mastery of fundamental material in computer science.
- CS4. Generate a dissertation that meets high academic standards.
- CS5. Describe advanced topics in computer science to a variety of audiences and through multiple modes.

**II. Assessment and Evaluation: AY 2023-2024**

The Department of Electrical Engineering and Computer Science (EECS) evaluated Student Learning Outcome assessments. The results of the analysis are summarized in the following:

- **Outcome CS1:**
  - The outcome measured in courses indicates students are achieving the Outcome at the desired target level.
- **Outcome CS2:**
  - The outcome measured in courses indicates students are achieving the Outcome at the desired target level.
- **Outcome CS3:**
  - The outcome measured in courses indicates students are achieving the Outcome at the desired target level.
- **Outcome CS4:**
  - The outcome measured in courses indicates students are achieving the Outcome at the desired target level.
- **Outcome CS5:**
  - The outcome measured in courses indicates students are achieving the Outcome at the desired target level.

**III. Changes to the Degree Program- Planned or Considered**

There are no changes in the Ph.D. in Computer Science degree program planned or considered based on the assessment and evaluation process. During the 2022-2023 academic year, the CSCE faculty approved a change in Ph.D. Qualifying Exam procedures towards only an oral exam held by the student's Advisory Committee. This change was introduced during the 2023-2024 academic year. Students entering the program prior to Fall 2024 can select either a written

or oral format for the Ph.D. qualifying exam.

The program is now under a recent merger of the Department of Computer Science and Computer Engineering (CSCE) and the Department of Electrical Engineering (ELEG) into the new Department of Electrical Engineering and Computer Science (EECS) that officially began August 14, 2023. This is an organizational change and for now degree programs will not be modified. It is anticipated there may be program changes in the future. For example, the EECS faculty may consider graduate courses that could be shared between the Computer Engineering, Computer Science and Electrical Engineering degree programs.

#### **IV. Changes to the Assessment Process - Planned or Considered**

The MS in Computer Science program outcomes are assessed using the following tools:

1. **Course Evaluation:** Evaluations of the course content pertaining to specific outcomes by students and faculty.
2. **Final Presentation/Thesis/Dissertation Defense Evaluation:** These are assessed at the final comprehensive exam presentation or thesis/dissertation defense through a questionnaire filled out by the student's advisory/thesis/dissertation committee members and their major advisor.

There will be an external review of the graduate programs in Computer Science during October 2024. The recommendations and comments from the evaluators will be assessed by the EECS Department and College of Engineering. Improvements to the Student Learning Outcomes and assessment process will be considered by the EECS faculty during the 2024-2025 academic year.