



## **Program Assessment Report (PAR)**

**Engineering (EGR) Doctoral Degree**

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**ACADEMIC YEAR COVERED BY THIS REPORT: 2021-2022**

### **I. PROGRAM LEARNING OUTCOMES**

1) demonstrate knowledge of engineering fundamentals, and synthesize and integrate material as applied to a research area 2) identify and outline a research plan that will advance the state of the art 3) demonstrate mastery of research techniques

### **II. PROCEDURES USED FOR ASSESSMENT**

#### **A. Direct Assessment**

1) demonstrate knowledge of engineering fundamentals, and synthesize and integrate material as applied to a research area -- Students must pass an oral and/or written candidacy examination given by their dissertation committee under the direction of their dissertation advisor. 2) identify and outline a research plan that will advance the state of the art -- Students must draft a dissertation proposal for evaluation by their dissertation committee. They must also present and defend their dissertation proposal in an oral examination. 3) demonstrate mastery of research techniques -- Students must draft a dissertation document, which is a comprehensive report on the methods, outcomes, and contributions of their research work, for evaluation by their dissertation committee.

#### **B. Scoring of Student Work**

Student work for each outcome is evaluated by their dissertation committee with a pass/fail outcome.

### **C. Indirect Assessment**

N/A

### **III. ASSESSMENT RESULTS/INFORMATION:**

1) demonstrate knowledge of engineering fundamentals, and synthesize and integrate material as applied to a research area 2) identify and outline a research plan that will advance the state of the art 3) demonstrate mastery of research techniques

1) 21 out of 35 active students on record have successfully completed their candidacy examination 2) 18 out of 35 active students on record have successfully completed their proposal defense 3) 6 students in the 2019-20 academic year successfully defended their dissertation and graduated

Similar to most other doctoral program, the Ph.D. in Engineering is a mastery based program where students do not advance until each milestone is completed. Hence, 100% of graduates have achieved all milestones.

### **IV. ACTIONS TO IMPROVE STUDENT LEARNING**

Program statistics are shared with faculty annually. Areas for improvement include retention and timely progression of students. Poor performance in these areas is frequently driven by the large number of students in the program that are pursuing their doctoral degree in a part-time capacity. These students frequently become inactive due to demands from outside their academic pursuits. The program continuously seeks to increase the number of full-time students, either fee-paying or under some type of assistantship or fellowship support.

### **V. SUPPORTING DOCUMENTS**

Additional documentation, when provided, is stored in the internal Academic Program Assessment of Student Learning SharePoint site.