Annual Academic Assessment Report

Doctor of Philosophy (Ph.D.)
with Civil Engineering emphasis

## Student Learning Outcomes:

1. Apply knowledge of math, science, and engineering to solve advanced-level problems in civil engineering.

2. Locate and evaluate pertinent published literature relevant to a given topic, and apply the information gained to a design, analysis, or research effort.

3. Effectively communicate scientific and technical information in English, both in writing and oral forms.

4. Design and conduct experiments, and analyze and evaluate the resulting data.

5. Develop an original and unique contribution to the extant body of knowledge within the dissertation topic area.

## Assessment and Evaluation:  AY 2022-2023

The Department of Civil Engineering evaluated Student Learning Outcome assessment data while producing a Program Self-Study Report for its 7-year program review, scheduled for September 17-19, 2023. The results of the analysis include the following:

- **Outcome 1**:
  - Problem solving skills exhibited by the Graduate Committee Assessment of Abilities scores indicate students are achieving the Outcome at the desired target level.

- **Outcome 2**:
  - Literature review and application skills exhibited by the Graduate Committee Assessment of Abilities scores indicate students are achieving the Outcome at the desired target level.

- **Outcome 3:**
  - Communication skills exhibited by the Graduate Committee Assessment of Abilities scores indicate students are achieving the Outcome at the desired target level.

- **Outcome 4:**
  - Experimental design, conduct, and evaluation skills exhibited by the Graduate Committee Assessment of Abilities scores indicate students are achieving the Outcome at the desired target level.

- **Outcome 5:**
  - The ability to develop original and unique contributions exhibited by the Graduate Committee Assessment of Abilities scores indicate students are achieving the Outcome at the desired target level.

## Changes to the Degree Program – Planned or Considered

No changes to the Degree Program are planned, based on the evaluation of assessment data. It is noted, however, that greater emphasis should be placed on communication and data analysis skills; while assessment scores met or exceeded target levels, these areas appear to be the weakest among the outcomes of the Ph.D. program.

## Changes to the Assessment Process – Planned or Completed

No changes to the assessment process are planned, or were completed in 2022-2023, based on evaluation of assessment data.