CIVIL ENGINEERING (ENGINEERING)

Learning Outcomes

Master of Engineering (M.Eng.)

1. **KNOW:** Graduates will be able to demonstrate understanding of advanced core principles and methods from selected sub-fields of Civil Engineering at a depth consistent with their course of study.
2. **APPLY/CREATE:** Graduates will be able to apply their knowledge of selected sub-fields of Civil Engineering to design and evaluate engineering solutions.
3. **THINK:** Graduates will be able to analyze and synthesize knowledge within the field of Civil Engineering to address a complex problem of practical relevance.
4. **COMMUNICATE:** Graduates will be able to demonstrate proficiency in oral and written communication appropriate to their discipline.
5. **PROFESSIONAL PRACTICE:** Graduates will be able to demonstrate an understanding of, and a commitment to, academic integrity and the standards for professional practice within Civil Engineering.

Master of Science (M.S.)

1. **KNOW:** Graduates will be able to demonstrate understanding of advanced core principles and methods from selected sub-fields of Civil Engineering at a depth consistent with their course of study.
2. **APPLY/CREATE:** Graduates will be able to apply their knowledge of selected sub-fields of Civil Engineering to design and evaluate engineering solutions.
3. **THINK:** Graduates will be able to analyze and synthesize knowledge within the field of Civil Engineering to extend existing knowledge through a research-based culminating experience.
4. **COMMUNICATE:** Graduates will be able to demonstrate proficiency in oral and written communication appropriate to their discipline.
5. **PROFESSIONAL PRACTICE:** Graduates will be able to demonstrate an understanding of, and a commitment to, the standards for scholarship and research integrity within Civil Engineering.

Doctor of Philosophy (Ph.D.)

1. **KNOW:** Graduates will be able to demonstrate an understanding of advanced core principles and methods as well as modern research findings from selected sub-fields of Civil Engineering at a depth appropriate for conceptualizing and conducting independent research.
2. **APPLY/CREATE:** Graduates will be able to apply their knowledge of selected sub-fields of Civil Engineering in formulating and executing a research plan.
3. **THINK:** Graduates will be able to demonstrate the ability to analyze and synthesize appropriate literature, to critically review their work in the context of the literature, and to formulate and defend conclusions based on their research that represent new scholarly contributions.
4. **COMMUNICATE:** Graduates will be able to demonstrate high levels of proficiency in oral and written communication.
5. **PROFESSIONAL PRACTICE:** Graduates will be able to demonstrate an understanding of, and a commitment to, the standards for scholarship and research integrity.