

College of Engineering Graduate Programs
Civil Engineering
Program Study Plan

Student Name: _____ ID: _____

Starting semester: _____

- A. **Tentative list of courses to be taken (check selected course).** Thesis option needs 7 courses and project option needs 9 courses.

In addition, all students must complete a seminar course CVE 695).

| Course | Title | Pre-requisite | |
|---|---|--|--|
| College Core Courses: (3 credits) | | | |
| Students must successfully complete one of the following courses: | | | |
| NGN 500 (3cr) | Advanced Engineering Mathematics | Admission to the program | |
| NGN 505 (3cr) | Random Variables and Stochastic | Admission to the program | |
| NGN 509 (3cr) | Advanced Computational Methods | Admission to the program | |
| In addition, All students must successfully complete a seminar course | | | |
| CVE 695(0 cr) | Seminar | Preq. Admission to the program | |
| Elective Courses | | | |
| <ul style="list-style-type: none"> Students in the thesis option must successfully complete a minimum of 18 credits. Students in the project option must successfully complete a minimum of 24 credits. | | | |
| Students can select elective courses from the following list: | | | |
| Courses | Course Description | Courses | Course Description |
| CVE 520 (3cr) | Advanced Construction Materials and Methods | CVE 620 (3cr) | Advanced Construction Planning and Controls |
| CVE 521 (3cr) | Finite Element Method | CVE 621 (3cr) | Analysis and Design of Tall Buildings |
| CVE 522 (3cr) | Advanced Water Resources Engineering | CVE 622 (3cr) | Physical and Chemical Processes in Environmental Engineering |
| CVE 523 (3cr) | Advanced Transportation Systems | CVE 623 (3cr) | Advanced Transportation Planning Techniques |
| CVE 524 (3cr) | Design of Strengthened Concrete Structures | CVE 624 (3cr) | Advanced Geotechnical Engineering |
| CVE 525 (3cr) | Structural Earthquake Engineering | CVE 625 (3cr) | Highway Bridge Design |
| CVE 526 (3cr) | Advanced Structural Steel Design | CVE 651 (3cr) | Wastewater Treatment Process Control |
| CVE 531 (3cr) | Dynamics of Machine Foundations | CVE 663 (3cr) | Traffic Flow Theory |
| CVE 551 (3cr) | Wastewater Treatment | CVE 696 (3cr) | Independent Study in Civil Engineering |
| CVE 572 (3cr) | Satellite Remote Sensing | ESM 570 (3cr) | Project Management |
| CVE 594/694 (3cr) | Special Topics in Civil Engineering | Other (please specify): | |
| Master's Thesis/Professional Project Option (9/3 credits) | | | |
| CVE 698 (3 cr) | Professional Project | Good academic standing. Approval of the program director. Pre-requisite/concurrent CVE 695 | |
| CVE 699 (9 cr) | Master's Thesis | Good academic standing. Approval of the program director. Pre-requisite/concurrent CVE 695 | |

Students in both options may elect to take **one course** outside the list of elective courses, with the approval of their advisor and the program director.

B. Transferred Courses (if any): _____

C. Bridging Courses (if any): _____

D. Main Research Area: _____

Program Director: Dr. Irtishad Uddin Ahmad

Date & Signature: _____