

Master of Engineering Program in Civil Engineering

Research Focus

- Water Resource Engineering
- Structural Engineering
- Construction Engineering
- Transportation Engineering
- Geotechnical Engineering

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.2
Coursework	24
- Core Courses	3
- Electives	21
Required Non-credit Courses	5
Thesis	12
Total	36

* Minimum credits required

2. Core Course

Requirements	Option 1.2	
	Course No.	Cr.
Applied Mathematics for Engineers	304501	3
Total	1	3

3. Electives

Requirements	Option 1.2	
	Course No.	Cr.
Structural Engineering		
Advanced Structural Analysis	304511	3
Advanced Mechanics of Materials	304512	3
Advanced Concrete Technology	304513	3
Structural Dynamics	304514	3
Construction Engineering		
Construction Planning	304521	3
Cost and Economics in Design and Construction	304522	3
Probability Statistics and Decision for Civil Engineering	304523	3
Construction Monitoring, Inspection and Control Process	304524	3
Transportation Engineering		
Urban Transportation Planning	304531	3
Traffic Design and Operations	304532	3
Advanced Highway Planning and Design	304533	3
Economic Analysis for Transportation Engineering	304534	3
Water Resource Engineering		
Advanced Fluid Mechanics	304541	3
Water Resources Development and Management	304542	3
Advanced Hydrology	304543	3
Design of Hydraulic Structures	304544	3
Geotechnical Engineering		
Advanced Soil Mechanics	304551	3
Advanced Foundation Engineering	304552	3
Soil Dynamics	304553	3
Earth Structures	304554	3
Total	≥7	≥21

4. Required Non-credit Courses

Requirements	Option 1.2	
	Course No.	Cr.
Research Methodology in Science and Technology	304503	3
Seminar 1	304581	1
Seminar 2	304582	1
Total	3	5

5. Thesis Credit Requirements

Requirements	Option 1.2	
	Course No.	Cr.
Thesis 1, Option 1.2	304591	3
Thesis 2, Option 1.2	304592	3
Thesis 3, Option 1.2	304593	6
Total	3	12