



DEPARTMENT OF CIVIL ENGINEERING

MS CIVIL ENGINEERING

At postgraduate level the department of Civil Engineering offers MS Program in streams of Structural Engineering and Water Resources Engineering. The MS program is planned as a 4 semester, 2-year program with total offered credit hours of 30, six credit hours from which are reserved for MS research thesis in 4th semester. This gives an unparalleled advantage in both technical skills and intellectual discipline to become leaders in overcoming the challenges of modern technological advancements. The student can choose amongst one of the following specializations while pursuing his master's in Civil Engineering.

Structural Engineering:

The master's degree courses are aimed at bringing the students abreast with the most recent developments their fields of Specialization. The list of courses is given below.

Shift:	Afternoon
Duration:	2 Years, 4 Semester, 30 Credit Hours
Eligibility:	B. Sc. Civil Engineering (4 years) or equivalent qualification with at least 2.50/4.00 or equivalent from any HEC recognized University & qualify entrance test.

1 st Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5152	Advanced Mechanics of Materials	3-0	Compulsory
2	Core Course			
3	Elective Course			
2 nd Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5110	Advanced Structural Analysis	3-0	Compulsory
2	Core Course			
3	Elective Course			
3 rd Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5115	Advanced Concrete Design	3-0	Compulsory
2	CE-5223	Applied Research Methods	1-0	Compulsory
3	Core Course			
4 th Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5199	Master Research Thesis	6-0	Compulsory



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List of Core Courses:

S. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5156	Structural Dynamics	3-0	Core
2	CE-5125	Computer Applications to Structural Engineering	3-0	Core
3	CE-5122	Repair and Retrofitting of Structures	3-0	Core
4	CE-5113	Finite Element Analysis	3-0	Core
5	CE-5154	Bridge Engineering	3-0	Core
6	CE-5153	Advanced Steel Design	3-0	Core
7	CE-5192	Advanced Concrete Technology	3-0	Core
8	CE-5128	Pre-Stressed Concrete Design	3-0	Core
9	CE-5112	RC Structures (Special Topic)	3-0	Core
10	CE-5121	Design of Masonry Structures	3-0	Core

Elective Courses:

Elective Courses can be selected from above mentioned core courses or from Water Resources Engineering Courses.



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Water Resources Engineering:

The master's degree courses are aimed at bringing the students abreast with the most recent developments their fields of Specialization. The list of courses is given below.

Shift: Afternoon

Duration: 2 Years, 4 Semester, 30 Credit Hours

Eligibility: B. Sc. Civil Engineering (4 years) or equivalent qualification with at least 2.50/4.00 or equivalent from any HEC recognized University & qualify entrance test.

1 st Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5610	Open Channel Flow	3-0	Compulsory
2		Core Course		
3		Elective Course		
2 nd Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5621	Advanced Engineering Hydrology	3-0	Compulsory
2		Core Course		
		Elective Course		
3 rd Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5822	Ground Water Hydrology and Exploration Techniques	3-0	Compulsory
2	CE-5223	Applied Research Methods	1-0	Compulsory
3		Core Course		
4 th Semester				
Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5100	Master Research Thesis	6-0	Compulsory



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List of Core Courses:

Sr. No	Course Code	Course Title	Cr. Hrs.	Status of Course
1	CE-5632	Advanced Irrigation Engineering	3-0	Core
2	CE-5643	Sediment Transport and River Engineering	3-0	Core
3	CE-5654	Design of Hydraulic Structures	3-0	Core
4	CE-5665	Dam and Reservoir Engineering	3-0	Core
5	CE-5676	Hydropower Engineering	3-0	Core
6	CE-5687	Flood Estimation and Control	3-0	Core
7	CE-5698	Reservoir Design and Operation	3-0	Core
8	CE-5709	Statistical Hydrology	3-0	Core
9	CE-5811	Remote Sensing and GIS Applications in Water Resources	3-0	Core
10	CE-5833	Applied Hydrology	3-0	Core

Elective Courses:

Elective Courses can be selected from above mentioned core courses or from Structural Engineering Courses.