

CURRICULUM AND MODULES (EFFECTIVE FROM 2017 INTAKE)

CURRICULUM

Curriculum of B.Sc. Engineering Honours Degree Programme
Department of Civil Engineering

Module Code	Module Name	Category	Lectures hrs/week	Lab/ Assignments hrs/week	Credits		Norm		Evaluation		
					GPA	NGPA	GPA	NGPA	CA%	WE%	
Semester 1											
MA1013	Mathematics	C	3.0	1/1	3.0				20	80	
CS1032	Programming Fundamentals	C	2.0	3/1	3.0				20	80	
ME1032	Mechanics	C	2.0	3/4	2.0				20	80	
MT1022	Properties of Materials	C	2.0	3/4	2.0				20	80	
CE1022	Fluid Mechanics	C	2.0	3/4	2.0				20	80	
EE1012	Electrical Engineering	C	2.0	3/4	2.0				20	80	
EL1012	Language Skill Enhancement I	C	-	3/1	1.0				20	80	
MN1012	Engineering in Context	C	1.0	0		1.0	15.0	1.0	30	70	
Total for Semester 1							15.0	1.0			
Semester 2											
MA1023	Methods of Mathematics	C	3.0	1/1	3.0				30	70	
CE1112	Structural Mechanics I	C	2.5	3/2	3.0				30	70	
CE1122	Fluid Mechanics II	C	2.5	3/2	3.0				30	70	
CE1132	Building Construction and Materials	C	2.0	3/1	3.0				30	70	
ME1812	Basic Thermal Sciences	C	2.0	-	2.0				30	70	
EL 1022	Language Skill Enhancement II	C	-	3/1	1.0		15.0	0.0	20	80	
CS2850	Visual Programming and Applications	E	1.0	3/1		2.0			100	-	
CE2260	Building Design Process & Applications	E	1.0	3/1		2.0	0.0	2.0	30	70	
MN1030	Entrepreneurship Skill Development (continuing)	E	0.5	3/2		1.0			70	30	
DE2XXX	Humanities Electives I	E	-	-		2.0		0.0			
Total for Semester 2							17.0	2.0			

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					GPA	NGPA	GPA	NGPA	CA%	WE%	
Semester 3											
MA2013	Differential Equations	C	2.0	-	2.0				30	70	
MA2023	Calculus	C	2.0	-	2.0				30	70	
CE2013	Structural Mechanics II	C	2.5	3/2	3.0				30	70	
CE2022	Design of Steel Structures	C	2.0	3/1	3.0				30	70	
CE2032	Hydraulic Engineering I	C	2.5	3/2	3.0				30	70	
CE2042	Soil Mechanics & Geology I	C	2.0	3/1	3.0				30	70	
CE2052	Construction Planning & Cost Estimating	C	2.0	3/1	3.0				30	70	
CE2062	Surveying I	C	2.0	3/1	3.0			22.0	0.0	30	70
MN1030	Entrepreneurship Skill Development (continuing from S2)*	O	0.5	3/2		1.0			70	30	
Total for Semester 3							22.0	0.0			
Semester 4											
MA2033	Linear Algebra	C	2.0	-	2.0				30	70	
MA3013	Applied Statistics	C	2.0	-	2.0				30	70	
CE2113	Structural Analysis I	C	2.5	3/2	3.0				30	70	
CE2122	Design of Concrete Structures I	C	2.0	3/1	3.0				40	60	
CE3012	Hydraulic Engineering II	C	2.5	3/2	3.0				30	70	
CE2132	Soil Mechanics & Geology II	C	2.0	3/1	3.0				30	70	
CE2142	Surveying II	C	2.0	3/1	3.0			19.0	0.0	30	70
DE2XXX	Humanities Electives II	E	-	-	2.0			2.0	0.0		
MN 2010	Entrepreneurial Leadership*	O	1.5	3/2	2.0				50	50	
Total for Semester 4							21.0	0.0			

* - only for students specializing in entrepreneurship minor

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Semester 5											
CE3112	Structural Analysis II	C	2.5	3/2	3.0				50	50	
CE3122	Design of Masonry & Timber Structures	C	2.0	3/1	3.0				40	60	
CE3132	Geotechnical Engineering	C	2.5	3/2	3.0				30	70	
CE3142	Construction Management	C	2.5	3/2	3.0				30	70	
CE3152	Fundamentals of Environmental Engineering	C	1.5	3/2	2.0				30	70	
CE3162	Fundamentals of Transportation Engineering	C	1.5	3/2	2.0				40	60	
MN3042	Business Economics & Financial Accounting	C	3.0	-	3.0			19.0	0.0	30	70
MN3010	Multidisciplinary Design, Innovation & Venture Creation	O	1.5	3/2	2.0					50	50
Total for Semester 5							19.0	0.0			
Industrial Training & Survey Camp											
CE3992	Industrial Training	C	-	-		6.0			100	-	
CE3913	Survey Camp	C	-	-		2.0		0.0	8.0	100	-
Total for Industrial Training & Survey Camp							0.0	8.0			
Semester 6											
CE4012	Design of Concrete Structures II	C	2.0	3/1	3.0				30	70	
CE4022	Hydraulic Design	C	2.5	3/2	3.0				30	70	
CE4032	Geotechnical Design	C	2.5	3/2	3.0				30	70	
CE4902	Communication Skills for Projects	C	1.0	3/1		2.0			100	-	
CE4922	Research Project (Continuing)	C	-	3/1	1.0			10.0	2.0	100	-
Total for Semester 6							10.0	2.0			
Semester 7											
CE4042	Highway Engineering	C	2.5	3/2	3.0				30	70	
CE4052	Environmental Engineering	C	2.5	3/2	3.0				40	60	
CE4912	Comprehensive Design Project (Continuing)	C	-	3/1	2.0				100	-	
CE4922	Research Project (Continuing)	C	-	6/1	2.0				0.0	100	-
MN4900	Professional Ethics	C	1.0			1.0		10.0	1.0		
CE4312	Building Engineering	E	2.0	3/1	3.0					40	60
CE4322	Irrigation Engineering	E	2.5	3/2	3.0					30	70
CE4332	Remote Sensing & GIS	E	2.5	3/2	3.0			6.0		50	50
CE4342	Construction Technology	E	2.0	3/1	3.0					40	60
CE4352	Traffic Engineering & Planning	E	2.5	3/2	3.0					30	70
MN3020	Entrepreneurship Business Basics	E	2.0	3/1	3.0					50	50
CE4610	Sustainable design and whole lifecycle	E	3.0	-	3.0					100	00
Total for Semester 7							16.0	1.0			

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<i>Semester 8</i>												
CE4112	Management Skill Development	C	2.0	-	2.0					30	70	
CE4123	Engineering Economics	C	2.0	-	2.0					30	70	
CE4912	Comprehensive Design Project	C	-	6.0	3.0					100	-	
CE4922	Research Project	C	-	3.0	1.0			8.0	0.0	100	-	
CE4412	Bridge Engineering	E	2.5	3/2	3.0					40	60	
CE4422	Advanced Structural Engineering & Design	E	2.0	3/1	3.0					40	60	
CE4432	Design of Large Structures	E	2.5	3/2	3.0					40	60	
CE4442	Computational Mechanics	E	2.0	3/1	3.0					40	60	
CE4452	Coastal & Port Engineering	E	2.5	3/2	3.0					30	70	
CE4472	Environmental Geotechnics	E	2.0	3/1	3.0					30	70	
CE4482	Computational Geotechnical Engineering	E	2.0	3/1	3.0					50	50	
CE4492	Project Management	E	2.0	3/1	3.0					30	70	
CE4502	Management Information Systems	E	2.0	3/1	3.0					30	70	
CE4522	Sustainable Design & Construction	E	2.0	3/1	3.0					40	60	
CE4532	Highway Construction & Maintenance Management	E	2.5	3/2	3.0					40	60	
CE4542	Analysis & Design of Transportation Systems	E	2.5	3/2	3.0					40	60	
CE4552	Water & Wastewater Treatment	E	2.5	3/2	3.0					40	60	
CE4562	Environmental Impact Assessment	E	2.0	3/1	3.0					40	60	
CE4620	Engineering Response to Climate Change	E	3.0	-	3.0					100	00	
MN 4010	Business Plan Development	E	1.5	3/2	2.0			9.0	0.0	70	30	
<i>Total for Semester 8</i>							17.0	0.0				
<i>Total for the Programme</i>							137.0	14.0				

The minor will consist of the following: This will give a total of 13 credits for the student to qualify for the minor. Six of these will come from optional subjects.

- MN 1030 – 2 NGPA – E
- MN 2010 – 2 GPA – O
- MN 3010 – 2 GPA – O
- MN 3020 – 3 GPA – E
- CE 4123 – 2 GPA – C
- MN 4010 – 2 GPA – O

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