

Intake:		2020 onwards		Specialization:		Civil Engineering					
Details of the Curriculum				Stream:							
Module Code	Module Name	Category C/E/O	Time allocation [Hours/Week]		Credits offered		Norm		Evaluation %		
			Lecture	Lab / Tute	GPA	NGPA	GPA	NGPA	CA	WE	
Semester 1			Specialization requirement			15.0					
MA1014	Mathematics	C	5/2	1	3.0		15.0	0.0	20	80	
CS1033	Programming Fundamentals	C	2	2	3.0				20	80	
ME1033	Mechanics	C	2	2/4	2.0				20	80	
MT1023	Properties of Materials	C	2	2/4	2.0				20	80	
CE1023	Fluid Mechanics	C	2	2/4	2.0				20	80	
EE1013	Electrical Fundamentals	C	2	2/4	2.0				20	80	
EL1030	Language Skill Enhancement (contd. to Semester 2)	C	-	2	1.0				100	0	
			Total			15.0	0.0	15.0	0.0		
Semester 2			Specialization requirement			18.0					
MA1024	Methods of Mathematics	C	5/2	1	3.0		13.0	1.0	30	70	
CE1113	Structural Mechanics I	C	5/2	2/2	3.0				30	70	
CE1123	Fluid Dynamics	C	5/2	2/2	3.0				30	70	
CE1133	Building Construction and Materials	C	2	2	3.0				30	70	
EL1030	Language Skill Enhancement (contd. from Semester 1)	C	-	2	1.0				0	100	
CE1140	Introduction to Conceptual Design (contd. to Semester 3)	C		2		1.0	100	0			
CE1210	Computing for Civil Engineering	E	1	2		2.0	0.0	2.0	100	0	
CE2261	Building Design Process & Applications	E	1	2		2.0			30	70	
HM-1	Humanities Electives	E	2	-	2.0		2.0	0.0	100	0	
			Total			15.0	5.0	15.0	3.0		
Semester 3			Specialization requirement			23.0					
MA2014	Differential Equations	C	2	-	2.0		22	1	30	70	
MA2024	Calculus	C	2	-	2.0				30	70	
CE2014	Structural Mechanics II	C	5/2	2/2	3.0				30	70	
CE2023	Design of Steel Structures	C	2	2	3.0				30	70	
CE2033	Hydraulic Engineering	C	5/2	2/2	3.0				30	70	
CE2043	Soil Mechanics & Geology I	C	2	2	3.0				30	70	
CE2053	Construction Planning & Cost Estimating	C	2	2	3.0				30	70	
CE2063	Surveying I	C	2	2	3.0				30	70	
CE1140	Introduction to Conceptual Design (contd. from Semester 2)	C		2		1.0			100	0	
			Total			22.0	1	22	1		
Semester 4			Specialization requirement			21.0					
MA2034	Linear Algebra	C	2	-	2.0		21.0	0.0	30	70	
CE2114	Structural Analysis I	C	5/2	2/2	3.0				30	70	
CE2123	Design of Concrete Structures I	C	2	2	3.0				40	60	
CE3013	Engineering Hydrology	C	5/2	2/2	3.0				30	70	
CE2133	Soil Mechanics & Geology II	C	2	2	3.0				30	70	
CE2143	Surveying II	C	2	2	3.0				30	70	
CE3153	Fundamentals of Environmental Engineering	C	3/2	2/2	2.0				30	70	
CE3163	Fundamentals of Transportation Engineering	C	3/2	2/2	2.0				40	60	
			Total			21.0	0.0	21.0	0.0		
Semester 5			Specialization requirement			18.0					
MA3014	Applied Statistics	C	2	-	2.0		18.0	0.0	30	70	
CE3113	Structural Analysis II	C	5/2	2/2	3.0				50	50	
CE3123	Design of Masonry & Timber Structures	C	2	2	3.0				40	60	
CE3133	Geotechnical Engineering	C	5/2	2/2	3.0				30	70	
CE3143	Construction Management	C	5/2	2/2	3.0				30	70	
CE4343	Construction Technology	C	2	2	3.0				40	60	
CE3880	Engineer and Society (contd. to Semester 6)	C		2	1.0				100	0	
			Total			18.0	0.0	18.0	0.0		
Industrial Training			Specialization requirement			8.0					
CE3993	Industrial Training	C	-	-		6.0	8.0		100	0	
CE3914	Survey Camp	C	-	-		2.0			100	0	

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				Total		0.0	8.0	0	8				
Semester 6				Specialization requirement				11.0					
CE4023	Hydraulic Design	C	5/2	2/2	3.0		9.0	2.0	30	70			
CE4033	Geotechnical Design	C	5/2	2/2	3.0				30	70			
CE4903	Communication Skills and Research Methodology	C	1	2		2.0			100	0			
CE4923	Research Project (contd. to Semester 6)	C	-	2	1.0				100	0			
CE3880	Engineer and Society (contd. from Semester 5)	C	1	2	2.0				100	0			
				Total		9.0	2.0	9.0	2.0				
Semester 7				Specialization requirement				13.0					
CE4043	Highway Engineering	C	5/2	2/2	3.0		13.0	0.0	40	60			
CE4053	Environmental Engineering	C	5/2	2/2	3.0				40	60			
CE4913	Comprehensive Design Project (contd. to Semester 7)	C	-	4	2.0				100	0			
CE4013	Design of Concrete Structures II	C	2	2/2	3.0				40	60			
CE4923	Research Project (contd. to Semester 6)	C	-	4	2.0				100	0			
CE4313	Building Engineering	E	2	2	3.0		0.0	0.0	40	60			
CE4323	Irrigation Engineering	E	5/2	2/2	3.0				30	70			
CE4333	Remote Sensing & GIS	E	5/2	2/2	3.0				50	50			
CE4353	Traffic Engineering & Planning	E	5/2	2/2	3.0				40	60			
CE4571	Operations Research for Infrastructure Systems	E	2	2	3.0				50	50			
CE4581	Intelligent Transportation Systems	E	2	2	3.0				40	60			
CE4611	Sustainable design and whole lifecycle	E	3	-	3.0				100	0			
CE4640	Disaster Risk Management	E	2	2	3.0				80	20			
				Total		37.0			0.0	13.0	0.0		
Semester 8				Specialization requirement				12.0					
CE4923	Research Project (contd. from Semester 7)	C	-	2	1.0		9.0	0.0	100	-			
CE4913	Comprehensive Design Project (contd. from Semester 7)	C		6	3.0				100				
CE4113	Management Skill Development	C	2		2.0				30	70			
CE4124	Engineering Economics and Financial Accounting	C	2	2	3.0				30	70			
CE4413	Bridge Engineering	E	2	2	3.0				40	60			
CE4433	Design of Large Structures	E	5/2	2/2	3.0		3.0	0.0	40	60			
CE4443	Computational Mechanics	E	5/2	2/2	3.0				40	60			
CE4453	Coastal & Port Engineering	E	5/2	2/2	3.0				30	70			
CE4473	Environmental Geotechnics	E	2	2	3.0				30	70			
CE4483	Computational Geotechnical Engineering	E	2	2	3.0				50	50			
CE4493	Project Management	E	2	2	3.0				30	70			
CE4523	Sustainable Design & Construction	E	2	2	3.0				40	60			
CE4533	Highway Construction & Maintenance Management	E	5/2	2/2	3.0				40	60			
CE4543	Analysis & Design of Transportation Systems	E	5/2	2/2	3.0				40	60			
CE4553	Water & Wastewater Treatment	E	5/2	2/2	3.0				40	60			
CE4563	Environmental Impact Assessment	E	2	2	3.0				40	60			
CE4591	Railway and Airport Engineering	E	2	2	3.0				40	60			
CE4621	Engineering Response to Climate Change	E	3	-	3.0				100	0			
CE4630	Computational Hydraulics and Hydrology	E	2	2	3.0				50	50			
CE4650	Environmental Sustainability for Civil Engineering Applications	E	5/2	2/2	3.0				40	60			
				Total		57			0	12.0	0.0		
Grand Total				194.0	16.0	125.0			14.0				

Total credit requirement for the Specialization		139.0
Faculty/Specialization Electives beyond the specialization requirements [refer faculty electives table]*		11.0
TOTAL CREDIT REQUIREMENT FOR GRADUATION		150.0

Service modules									
Code	Module Name	Semester	Time allocation [Hours/Week]		Credits		Offered to	Evaluation %	
			Lecture	Lab / Tute	GPA	NGPA		CA	WE
CE2063	Surveying I	3	2	2	3.0		ER	30	70
CE1823	Aspects of Civil Engineering	3	2		2.0		EE, CS	30	70
CE1813	Mechanics of Materials	3	2		2.0		ENTC	30	70
CE2143	Surveying II	4	2	2	3.0		ER	30	70