

FACULTY OF ENGINEERING & TECHNOLOGY

Name of the Programme: Master of Technology (Civil Engineering) [Transportation Engineering/Structural Engineering/Remote Sensing and GIS] : 2022-23 onwards

Semester/Year	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ AECC/ SEC/VAC/ DSE/ GE	For ERP	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Contact Hours	Theory		Theory (Internal)				Practical				Practical (Internal)				Overall Pass Marks	Scheme of Examinations [Theory+Internal or Practical+Internal]			
													Max	Pass	Mid Term	Assignment	Project/Seminar/Activity	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Viva-Voce in each lab class	Lab Work			Evaluation of Performance of Exp	Max	Pass
I	-	13160138	Research Methodology & IPR	Theory	Core	Core	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160107	Seminar	Practical	Core	Core	Separate	0	0	2	1	2	-	-	-	-	-	-	-	-	-	-	-	10	20	20	50	100	40	Practical+Internal	
			Transportation Engineering																												
I	-	13160132	Pavement Materials	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
		13160133	Urban Transportation System Planning	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160134	Geometric Design of Transportation Facilities	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160135	Ground Improvement	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160136	Pavement Materials Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
I	-	13160137	Geometric design Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
			Structural Engineering																												
I	-	13160114	Advance Pre-Stressed Concrete Design	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
	-	13160115	Structural Dynamics	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160116	Matrix Methods of Structural Analysis	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160117	Design of Concrete Structural Systems	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160118	Matrix methods of Structural Analysis Lab (STAAD PRO)	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
I	-	13160119	Design of Concrete and Structural Systems Lab (STAAD PRO)	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
			Remote Sensing & GIS																												
I	-		Principles of Remote Sensing	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
	-	13160108	Geographical Information Systems	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160139	Photogrammetry	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160140	Application Of Remote Sensing	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
I	-	13160141	Geographical Information Systems Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
I	-	13160142	Photogrammetry Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
			Total Credits for the Semester					15	0	6	18	21																			
II	-	13160238	Minor Project	Practical	Core	Core	Separate	0	0	6	3	6	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
			Transportation Engineering																												
II	-	13160232	Analysis and Design of Pavement	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
II	-	13160233	Transport Economics	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
II	-	13160234	Traffic Engineering and Management	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
II	-	13160235	Airport Infrastructure, Planning and Design	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
II	-	13160236	Pavement Design Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
II	-	13160237	Traffic Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal
			Structural Engineering																												
II	-	13160214	Finite Element Analysis	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	
II	-	13160215	Theory of Elasticity and Plasticity	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	40	Theory + Internal	

FACULTY OF ENGINEERING & TECHNOLOGY

Name of the Programme: Master of Technology (Civil Engineering) [Transportation Engineering/Structural Engineering/Remote Sensing and GIS] : 2022-23 onwards

Semester/Year	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ AECC/ SEC/VAC/ DSE/ GE	For ERP	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Contact Hours	Theory		Theory (Internal)				Practical				Practical (Internal)				Overall Pass Marks	Scheme of Examinations [Theory+Internal or Practical+Internal]					
													Max	Pass	Mid Term	Assignment	Project/Seminar/Activity	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Viva-Voce in each lab class	Lab Work			Evaluation of Performance of Exp	Max	Pass		
II	-	13160216	Limit State Design of Steel Structures	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160217	Earthquake Resistant Design	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160218	Structural Engineering lab (CASTING)	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal		
II	-	13160239	Finite Element Analysis Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal		
			Remote Sensing & GIS																														
II	-	13160240	Geospatial data Processing and Modelling	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160241	Satellite Image Processing	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160242	Advanced GIS	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160243	GPS & Surveying	Theory	Core	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
II	-	13160244	Advanced GIS Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal		
II	-	13160245	Satellite Image Processing Lab	Practical	Core	DSE	Separate	0	0	2	1	2	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal		
			Total Credits for the Semester					12	1	10	18	23																					
III	-	13160367	Dissertation Phase-I	Practical	Core	Core	Separate	0	0	12	6	12	-	-	-	-	-	-	-	20	20	40	16	10	10	10	30	60	24	40	Practical+Internal		
			Transportation Engineering																														
III	-	13160357	Intelligent Transportation Systems	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Choose one of the following																														
III	-	13160355	Construction Project Management & BOT	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160368	Traffic Management and Road safety	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160359	Highway Construction Practices	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Choose one of the following																														
III	-	13160369	Pavement evaluation, Rehabilitation & Maintenance	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160363	Environment Impact Assessment	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160365	Bridge Engineering	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Structural Engineering																														
III	-	13160305	Theory & Design of Plate and Shell	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Choose one of the following																														
III	-	13160325	Pre-Fabricated Structures	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160327	Design of Industrial Structures	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160329	Maintenance & Rehabilitation of Structures	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Choose one of the following																														
III	-	13160331	Design of Bridges	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160333	Composite Structures	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
III	-	13160335	Design of Tall Buildings	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		
			Remote Sensing & GIS																														
III	-	13160370	Digital Image Processing	Theory	Core	DSE	Separate	3	1	0	4	4	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal		

FACULTY OF ENGINEERING & TECHNOLOGY

Name of the Programme: Master of Technology (Civil Engineering) [Transportation Engineering/Structural Engineering/Remote Sensing and GIS] : 2022-23 onwards

Semester/Year	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ AECC/ SEC/VAC/ DSE/ GE	For ERP	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Contact Hours	Theory		Theory (Internal)					Practical				Practical (Internal)					Overall Pass Marks	Scheme of Examinations [Theory+Internal or Practical+Internal]				
													Max	Pass	Mid Term	Assignment	Project/Seminar/Activity	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Viva-Voce in each lab class	Lab Work	Evaluation of Performance of Exp	Max			Pass			
			Choose one of the following																															
III	-	13160371	Web and Mobile GIS	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
III	-	13160372	Argo Remote Sensing	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
III	-	13160373	Remote Sensing Geology	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
			Choose one of the following																															
III	-	13160374	Global Navigation Satellite System	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
III	-	13160375	Advanced Surveying and Cartography	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
III	-	13160376	Pattern Recognition and Machine Learning	Theory	DSE	DSE	Separate	3	0	0	3	3	60	24	20	10	10	40	16	-	-	-	-	-	-	-	-	-	-	-	-	-	40	Theory + Internal
			Total Credits for the Semester					9	1	12	16	22																						
IV	-	131604032	Dissertation Phase-II	Practical	Core	Core	Separate	0	0	0	16	14w	-	-	-	-	-	-	-	60	40	100	40	10	20	20	50	100	40	80		Practical + Internal		
			Total Credits for the Semester					0	0	0	16	14w																						
			TOTAL CREDITS REQUIRED FOR DEGREE : 68																															