

FACULTY OF ENGINEERING & TECHNOLOGY

Name of the Programme: Master of Technology in Civil Engineering (Transportation Engineering/ Structural Engineering/ Remote Sensing and GIS)

Session: 2023-24 onwards

Semester/Year	Council Code (If any)	Subject Code (If already existing)	Nomenclature	Theory/ Practical/	Core/ AECC/ SEC/VAC / DSE/ GE	Theory/Practical (Result Combined or Separate)	L	T	P	Credits	Theory External		Theory (Internal)					Practical External				Practical (Internal)				Overall Pass Marks	End Term Examination Overall Passing Criteria: Theory: [External+Internal] or Practical: [External+Internal]			
											Max	Pass	Attendance Marks	Mid Term Weightage	Assignment	Professional Activities	Max	Pass	Demonstration/Presentation	Viva-voce	Max	Pass	Attendance	Project/Laboratory Work/ Lab Performance	Midterm oral Examination / assessment			Max	Pass	
I/I	-	13160138	Research Methodology & IPR	Theory	Core	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160107	Seminar	Practical	Core	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Transportation Engineering																											
I/I	-	13160132	Pavement Materials	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160133	Urban Transportation System Planning	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160134	Geometric Design of Transportation Facilities	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160135	Ground Improvement	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160136	Pavement Materials Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
I/I	-	13160137	Geometric design Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Structural Engineering																											
I/I	-	13160114	Advance Pre-Stressed Concrete Design	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
	-	13160115	Structural Dynamics	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160116	Matrix Methods of Structural Analysis	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160117	Design of Concrete Structural Systems	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160118	Matrix methods of Structural Analysis Lab (STAAD PRO)	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
I/I	-	13160119	Design of Concrete and Structural Systems Lab (STAAD PRO)	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Remote Sensing & GIS																											
I/I	-	13160143	Principles of Remote Sensing	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160108	Geographical Information Systems	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160139	Photogrammetry	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160140	Application Of Remote Sensing	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	-	40	External+Internal
I/I	-	13160141	Geographical Information Systems Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
I/I	-	13160142	Photogrammetry Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Total Credits for the Semester				15	0	6	18																				
II/I	-	13160238	Minor Project	Practical	Core	Separate	0	0	6	3	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	

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II/I			Transportation Engineering																											
II/I	-	13160232	Analysis and Design of Pavement	Theory	DSE	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160233	Transport Economics	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160234	Traffic Engineering and Management	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160235	Airport Infrastructure, Planning and Design	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160236	Pavement Design Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
II/I	-	13160237	Traffic Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Structural Engineering																											
II/I	-	13160214	Finite Element Analysis	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160215	Theory of Elasticity and Plasticity	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160216	Limit State Design of Steel Structures	Theory	DSE	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160217	Earthquake Resistant Design	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160218	Structural Engineering lab (CASTING)	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
II/I	-	13160239	Finite Element Analysis Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Remote Sensing & GIS																											
II/I	-	13160240	Geospatial data Processing and Modelling	Theory	DSE	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160241	Satellite Image Processing	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160242	Advanced GIS	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160243	GPS & Surveying	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
II/I	-	13160244	Advanced GIS Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
II/I	-	13160245	Satellite Image Processing Lab	Practical	DSE	Separate	0	0	2	1	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Total Credits for the Semester				12	1	10	18																				
III/II	-	13160367	Dissertation Phase-I	Practical	Core	Separate	0	0	12	6	-	-	-	-	-	-	-	-	20	10	30	12	5	5	10	20	8	20	External+Internal	
			Transportation Engineering																											
III/II	-	13160357	Intelligent Transportation Systems	Theory	DSE	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
			Choose one of the following																											
III/II	-	13160355	Construction Project Management & BOT	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
III/II	-	13160368	Traffic Management and Road safety	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
III/II	-	13160359	Highway Construction Practices	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
			Choose one of the following																											
III/II	-	13160369	Pavement evaluation, Rehabilitation & Maintenance	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	
III/II	-	13160363	Environment Impact Assessment	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal	

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III/II	-	13160365	Bridge Engineering	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal

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			Structural Engineering																										
III/II	-	13160305	Theory & Design of Plate and Shell	Theory	DSE	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Choose one of the following																										
III/II	-	13160325	Pre-Fabricated Structures	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160327	Design of Industrial Structures	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160329	Maintenance & Rehabilitation of Structures	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Choose one of the following																										
III/II	-	13160331	Design of Bridges	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160333	Composite Structures	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160335	Design of Tall Buildings	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Remote Sensing & GIS																										
III/II	-	13160370	Digital Image Processing	Theory	Core	Separate	3	1	0	4	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Choose one of the following																										
III/II	-	13160371	Web and Mobile GIS	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160372	Argo Remote Sensing	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160373	Remote Sensing Geology	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Choose one of the following																										
III/II	-	13160374	Global Navigation Satellite System	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160375	Advanced Surveying and Cartography	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
III/II	-	13160376	Pattern Recognition and Machine Learning	Theory	DSE	Separate	3	0	0	3	60	24	5	20	5	10	40	16	-	-	-	-	-	-	-	-	-	40	External+Internal
			Total Credits for the Semester				9	1	12	16																			
IV/II	-	131604032	Dissertation Phase-II	Practical	Core	Separate	0	0	15 Week	16	-	-	-	-	-	-	-	-	60	60	120	48	20	20	40	80	32	80	External+Internal
			Total Credits for the Semester				0	0	15 Week	16																			
			TOTAL CREDITS REQUIRED FOR DEGREE : 68																										

Is there provision for Internal Marks Revision	As Per University Norms
Number of chances for reappear	As Per University Norms
Promotion Criteria	As Per University Norms

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Note: If student wants to pursue a specialization offered by the department then He/She will have to opt for it in First Semester itself and same will be notified to COE accordingly																													