VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELAGAVI

Scheme & Syllabus of Teaching and Examinations (2026)
II Semester

M.Tech., in Civil Engineering

Specialization in Transportation Engineering and Management (MCTM)

Choice-Based Credit System (CBCS) and Outcome-Based Education (OBE)

Specialization in – (Transportation Engineering and Management)													
II SEMESTER													
Sl. No	**Course**	**Course Code**	**Course Title**	**Teaching & Learning Scheme**					**Examination**				**Credits**
				CI		**LI**	**TW & SL**	**Total Hours**	**Duration in hours**	**CIE Marks**	**SEE Marks**	**Total Marks**	
				L	**T**	**P**							
1	PCC/ IPCC	1MCTE201/ **1MCTM201/** 1MCHT201	Traffic Flow Theory & Simulation (VISUM, VISSIM)	42	0	28	50	120	03	50	50	100	4
2	PCC	1MCTE202/ **1MCTM202/** 1MCHT202	Sustainable Pavement Materials & Construction	42	0	0	48	90	03	50	50	100	3
3	PCC	**1MCTE203/ 1MCTM203/** 1MCHT203	Pavement Analysis and Mechanistic–Empirical Design	42	0	0	48	90	03	50	50	100	3
4	PCC	1MCTE204/ **1MCTM204/** 1MCHT204	Transportation Planning, Public Transport & Sustainable Mobility	42	0	0	48	90	03	50	50	100	3
5	PEC	**1MCTM205X**	Professional Elective – III	42	0	0	48	90	03	50	50	100	3
6	PEC	**1MCTM206X**	Professional Elective – IV	42	0	0	48	90	03	50	50	100	3
7	PCC L	1MCTEL207/ **1MCTML207/** 1MCHTL207	Pavement Materials and Evaluation Lab	0	0	28	02	30	03	50	50	100	1
8	PCC	**1MCTMS208**	Minor Project/Skill Development Project	0	0	0	60	60	03	50	50	100	2
									Total	**400**	**400**	**800**	**22**

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Professional Elective Courses (PECs)					
PEC-III			**PEC-IV**		
Code	**Title of the Course**		**Code**	**Title of the Course**
1MCTE205A/ 1MCHT205A/ **1MCTM205A**	Geotechnical Investigations for Highway Development Projects		1MCTE206A/ **1MCTM206A/** 1MCHT206A	Management Systems for Highway Construction and Maintenance
1MCTE205B/ 1MCHT205B/ **1MCTM205B**	Pavement Health Monitoring and Predictive Maintenance		1MCTE206B/ **1MCTM206B**	Electric Mobility & Charging Infrastructure
1MCTE205C/ 1MCHT205C/ **1MCTM205C**	Road Safety Planning and Implementation		1MCTE206C/ **1MCTM206C**	Sustainable Urban Transport & SDG-11
1MCTE205D/ 1MCHT205D/ **1MCTM205D**	Transport Economics & Contract Policy		1MCTE206D/ 1MCHT206D/ **1MCTM206D**	Pavement Asset Management System
1MCTE205E/ **1MCTM205E**	Urban Traffic Management & Analytics		1MCTE206E/ 1MCHT206E/ **1MCTM206E**	Innovative Practices in Road Construction
1MCTE205F/ **1MCTM205F**	Railway Engineering & Track Dynamics		**1MCTE206F/** 1MCHT206F/ **1MCTM206F**	Detailed Project Report (DPR) preparation for Transportation Sector
1MCTE205G/ 1MCHT205G/ **1MCTM205G**	Urban Mass Transit Systems		**1MCTE206G/** 1MCHT206G/ 1MCTM206G	Big Data & AI in Transportation Systems
1MCTE205H/ **1MCTM205H**	Climate Resilient Transportation Infrastructure		1MCTE206H/ **1MCTM206H**	Airport Planning & Design