

**DEPARTMENT OF CIVIL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE**

Program Code : **XXX M.Tech. (Transportation Engineering)**
 Department : **Department of Civil Engineering**
 Year : **I**
 Model : **2**

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical
Semester-I (Autumn)									
1.	CEC-551	Traffic Analysis and Design	PCC	3	3	0	0	3	0
2.	CEC-553	Highway Material Characterisation	PCC	4	3	0	2	3	0
3.	CEC-555	Pavement Evaluation and Management	PCC	3	3	0	0	3	0
4.	CEC-557	Geometric Design	PCC	3	3	0	0	3	0
5.	CEC-559	Transportation Planning	PCC	3	3	0	0	3	0
6.		Social Science Course	SSC	2	-	-	-	-	-
		Total		18					
Semester-II (Spring)									
1.		Program Elective-I	PEC	4	3	0	2	-	-
2.		Program Elective-II	PEC	4	3	0	2	-	-
3.		Program Elective-III	PEC	4	-	-	-	-	-
4.		Program Elective-IV	PEC	4	-	-	-	-	-
5.		Science, Technology, and Advanced Research-tools	STAR	3	-	-	-	-	-
6.	CEC-700	Seminar	SEM	2	-	-	-	-	-
		Total		21					

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Program Code : **XXX M.Tech. (Transportation Engineering)**
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Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical
Semester-I (Autumn)									
1.	CEC-691	Internship Social Activity	ISA	3	-	-	-	-	-
2.	CEC-701A	Thesis Stage-I	THESIS	10	-	-	-	-	-
		Total		13					
Semester-II (Spring)									
1.	CEC-701B	Thesis Stage-II	THESIS	14	-	-	-	-	-
		Total		14					

Summary				
Semester	1	2	3	4
Semester-wise Total Credits	18	21	13	14
Total Credits	66			

M.Tech. (Transportation Engineering)

Program Elective Courses

Teaching Scheme					Contact Hours/Week			Exam Duration	
S.No.	Subject Code	Course Title	Subject Area	Credits	L	T	P	Theory	Practical
1.	CEL-540	Pavement Analysis and Design	PEC	4	3	1	0	3	0
2.	CEL-666	Transport Economics	PEC	4	3	1	0	3	0
3.	CEL-662	Intersection Design and Control	PEC	4	3	1	0	3	0
4.	CEL-563	Urban Mass Transit Systems	PEC	4	3	1	0	3	0
5.	CEL-565	Planning, Design, and Construction of Rural Roads	PEC	4	3	1	0	3	0
6.	CEL-567	Transportation Systems Analysis	PEC	4	3	0	2	3	0
7.	CEL-541	Transportation Data Analysis Techniques	PEC	4	3	0	2	3	0
8.	CEL-546	Advanced Highway Construction and Maintenance	PEC	4	3	0	2	3	0
9.	CEL-665	Road Traffic Safety	PEC	4	3	0	2	3	0

Note: Students should opt for PECs in such a way that they earn 03 credits from practical components in the entire programme.