

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

Program Code : **XXX M.Tech. (Environmental 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
<b>Semester-I (Autumn)</b>									
1.	CEC-501	Environmental Separation Processes	PCC	4	3	1	0	3	0
2.	CEC-503	Wastewater Treatment	PCC	3	3	0	0	3	0
3.	CEC-505	Environmental Chemistry	PCC	5	3	1	2	3	0
4.	CEC-507	Environmental Modelling and Simulation	PCC	4	3	0	2	3	0
5.		Social Science Course	SSC	2	-	-	-	-	-
		<b>Total</b>		<b>18</b>					
<b>Semester-II (Spring)</b>									
1.		Program Elective-I	PEC	4	-	-	-	-	-
2.		Program Elective-II	PEC	4	-	-	-	-	-
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	-	-	-	-	-
		<b>Total</b>		<b>21</b>					

**DEPARTMENT OF CIVIL ENGINEERING  
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Program Code : **XXX M.Tech. (Environmental Engineering)**  
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 Year : **II**  
 Model : **2**

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

Summary				
Semester	1	2	3	4
Semester-wise Total Credits	18	21	13	14
<b>Total Credits</b>	<b>66</b>			

M.Tech. (Environmental 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-602	Water Quality Management	PEC	4	3	1	0	3	0
2.	CEL-603	Industrial and Hazardous Waste Management	PEC	4	3	1	0	3	0
3.	CEL-604	Environmental Impact and Risk Assessment	PEC	4	3	1	0	3	0
4.	CEL-606	Environmental Remediation of Contaminated Sites	PEC	4	3	1	0	3	0
5.	CEL-506	Ground Water Engineering	PEC	4	3	1	0	3	0
6.	CEL-614	Theory and Application of GIS	PEC	4	3	0	2	3	0
7.	CEL-507	Systems Engineering	PEC	4	3	1	0	3	0
8.	CEL-508	Environmental Nanotechnology	PEC	4	3	1	0	3	0
9.	CEL-509	Statistics and Instrumentation for Environmental Engineers	PEC	4	3	0	2	3	0
10.	CEL-504	Air Pollution and Control	PEC	4	3	0	2	3	0
11.	CEL-605	Solid Waste Management	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.**