

M. Tech Construction Management

Programme Outcomes (PO):

- PO1:** An ability to independently carry out research /investigation and development work to solve practical problems.
- PO2:** An ability to write and present a substantial technical report/document.
- PO3:** Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.
- PO4:** Students learn timely and cost-effective project delivery, with a stronghold of project management skills, including planning, execution, and monitoring of construction activities.
- PO5:** Effectively communicate complex engineering activities through technical reports and presentations, while demonstrating advanced professional skills to solve multidisciplinary problems in construction technology and management.
- PO6:** Invent and implement feasible, optimal solutions to real-life engineering problems by adhering to professional codes of conduct and promoting sustainable development through the use of eco-friendly materials and technologies.



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Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs./Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	CM2101	Construction Project Management	3	-	-	3	3	20	20	60	100
2	PCC	CM2102	Construction Equipment	3	-	-	3	3	20	20	60	100
3	PEC	CM21*3	Program Elective I	3	-	-	3	3	20	20	60	100
4	PEC	CM21*4	Program Elective II	3	-	-	3	3	20	20	60	100
5	MDC	RM2105	Research Methodology	2	-	-	2	2	20	20	60	100
6	PCC	CM2106	Laboratory I(Construction Project Management)	-	-	4	4	2	-	25	25	50
7	PEC	CM2107	Laboratory 2 (Based on Elective I & II)	-	-	4	4	2	-	50	-	50
8	OEC	OE21*8	Open Elective	3	-	-	3	3	20	20	60	100
9	MNC	AU21*9	Audit Course I	2	-	-	2	Audit	-	-	-	-
			Total	19	-	8	27	21	120	195	385	700

L-Lecture	T-Tutorial	P-Practical
MSE- Mid Semester Examination		ISE- In Semester Evaluation
ESE- End Semester Examination (For Laboratory End Semester performance)		

* Program Elective- I and II, Audit Course I, Open Elective list is provided at the end of structure.



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Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	PCC	CM2201	Project Economics and Financing	3	-	-	3	3	20	20	60	100
2	PCC	CM2202	Construction Methods and Techniques	3	-	-	3	3	20	20	60	100
3	PEC	CM22*3	Program Elective III	3	-	-	3	3	20	20	60	100
4	PEC	CM22*4	Program Elective IV	3	-	-	3	3	20	20	60	100
5	PEC	CM22*5	Program Elective V	3	-	-	3	3	20	20	60	100
6	PCC	CM2206	Laboratory 3 (Based on cores)	-	-	4	4	2	-	25	25	50
7	PCC	CM2207	Laboratory 4 (Based on Elective III & IV)	-	-	4	4	2	-	50	-	50
8	P/S/IT	CM2208	Seminar	-	-	4	4	2	-	100	-	100
9	MNC	AU22*9	Audit Course II	2	-	-	2	Audit	-	-	-	-
			Total	17	-	12	29	21	100	275	325	700

*-Program Elective- III, IV and V, Audit Course II list is provided at the end of structure.



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SCHEME OF INSTRUCTION & SYLLABI

Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Construction Management Semester – III (W.E.F. AY. 2025-26)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	CM2301	Dissertation Phase-I	-	-	14	14	07	-	100	100	200
2	MOOC	CM2302	MOOCs / OPEN COURSE (8-12 weeks)	-	-	-	-	03	-	-	100	100
Total				00	00	14	14	10	-	100	200	300

Note:

1. The MOOCs course is mandatory for semester-III in second year M. Tech for all students, and a candidate Dissertation Phase-II of sem-IV of second year M. Tech will be considered incomplete without passing this mandatory MOOC course.
2. In Case, the course offered online are not completely relevant with the topic of dissertation then any course suggested by NASSCOM on recent technologies can be opted by candidate.

L- Lecture

T-Tutorial

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SCHEME OF INSTRUCTION & SYLLABI
Scheme of Instruction for Second Year of M. Tech. (PG) Degree in Construction Management
Semester – IV (W.E.F. AY. 2025-26)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Credits	EXAM SCHEME			
									MSE	ISE	ESE	TOTAL
1	P/S/IT	CM2401	Dissertation phase-II	-	-	32	32	16	-	100	200	300
			Total	-	-	32	32	16	-	100	200	300

L- Lecture

T-Tutorial

P-Practical

MSE- Mid Semester Examination

ISE- In Semester Evaluation

ESE- End Semester Examination (For Laboratory End Semester performance)



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SCHEME OF INSTRUCTION & SYLLABI

Scheme of Instruction for First Year and Second Year of M. Tech. (PG) Degree in

Construction Management

Semester – I to IV (W.E.F. AY. 2025-26)

List of Electives

Program Elective I	Program Elective II	Program Elective III	Program Elective IV	Program Elective V
Semester - I	Semester - I	Semester - II	Semester - II	Semester - II
CM 2113 Computational Methods and Optimization Techniques	CM 2114 Advanced Construction Techniques	CM 2213 Construction Contracts and Legal Aspects	CM 2214 Cost Management of Engineering Projects	CM 2215 Entrepreneurship in Construction
CM 2123 Human Resource Development in Construction	CM 2124 Repair and Rehabilitation of Structures	CM 2223 Advanced Construction Materials and Building Services	CM 2224 MIS for Construction Management	CM 2225 Environment Impact Assessment
	CM 2134 Ground Improvement Techniques			

Open Elective	Audit Course I	Audit Course II
Semester - I	Semester - I	Semester - II
OE2118: Business Analytics	AU2119: Research Paper Writing	AU 2219: Constitution of India
OE2128: Industrial Safety	AU 2129: Disaster Management	AU 2229: Pedagogy Studies
OE2138: Operations Research	AU 2139: Sanskrit for Technical Knowledge	AU 2239: Stress Management by Yoga
OE2148: Cost Management of Engineering Projects	AU 2149: Value Education	AU 2249: Personality Development through Life Enlightenment Skills
OE2158: Composite Materials		
OE 2168 :Waste to Energy		

Course Category	PC	PCE	MLC	MP/IT	DP I	DP II	Total
Credits	24	16	02	02	10	14	68



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