

Sardar Patel College of Engineering Andheri (West), Mumbai 400 058

Year: 2020-21

**M.Tech. in Civil Engineering with
Construction Management Courses**

Academic Scheme
Year 2020-21

Sardar Patel College of Engineering Andheri (West), Mumbai 400 058

Year: 2020-21

Scheme for M.Tech. (Civil) with Construction Management Courses (Semester – I) Academic year 2020-21

Sr. No	Course Type	Code	Course Name	Course Plan for Each Week (Hrs)			Credits			Evaluation (Marks)				Total
				Lectures	Laboratory	Tutorial		Test 1	Test 2	End Semester		End Semester Weightage (%)	In Semester Evaluation	
										Marks	Duration			
1	Core - I	PC-MTCM101	Construction Organisation and Safety Management	3	--	01	4	20	20	100	3	60	25 [#]	125
2	Core - II	PC-MTCM102	Applied Statistics and Quantitative Techniques	3	--	01	4	20	20	100	3	60	25 [#]	125
3	Program Elective - I	PEC-MTCM 101-103	Programme Elective - I	3	--	---	3	20	20	100	3	60		100
4	Program Elective - II	PEC-MTCM 111-113	Programme Elective - II	3	--	---	3	20	20	100	3	60		100
5	Core Lab I	PC-MTCML 501	Advanced Material testing Lab	--	02	---	1						50	50 #
6	Core Lab II	PC-MTCML 502	Geo-Informatics Lab	--	02	---	1	--	--	--	--	--	50	50 #
7	MLC	MC-PG01	Research Methodology and IPR	2			2	20	20	100	3	60		100
8	Audit-I	AU-PG01-02	Audit	2	--	---	AU	20	20	100	3	60		100
Total				16	04	02	18	100	100			300	150	650

NOTE - Test 1, Test 2 and end semester weightage marks will be added and shown as the theory marks in the mark sheet. Duration of Test 1, Test 2 is of 1 hour. For passing, Student must secure minimum 50% marks in each course with all heads of passing taken together and minimum 50% marks in the end semester examination.

Assessment criteria for laboratory/Tutorial work. i.e. weightage for assessment shall be as follows:

- (i) Attendance in Laboratory/Tutorial = 20%,
- (ii) Journal/Drawing sheet/Sketch book = 40%,
- (iii) MCQ/Oral/Test = 40%.

Sr. No.	Code	Programme Elective –I
1.	PECMTCM 101	Safety Management
2.	PECMTCM 102	Construction materials
3.	PECMTCM 103**	Accounting and Finance Management (Online Course)

Sr. No.	Code	Programme Elective - II
1.	PECMTCM 111	Management of Infrastructure Services
2.	PECMTCM 112	Advanced Construction Techniques
3.	PECMTCM 113	Construction Marketing

Audit -I Courses

Sr. No.	Code	Elective
1	AU-PG 01	Project Planning and Management
2	AU-PG 02	English for Research Paper Writing

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Scheme for M.Tech. (Civil) with Construction Management Courses (Semester – II) Academic year 2020-21

Sr. No	Course Type	Code	Course Name	Course Plan for Each Week (Hrs)			Credits	Evaluation (Marks)						Total
				Lectures	Laboratory	Tutorial		Test 1	Test 2	End Semester		End Semester Weightage (%)	In Semester Evaluation	
										Marks	Duration			
1	Core - 3	PC-MTCM201	Project Monitoring and Control	3	--	01	4	20	20	100	3	60	25 [#]	125
2	Core -4	PC-MTCM202	Project Appraisal, Planning and Scheduling	3	--	01	4	20	20	100	3	60	25 [#]	125
3	Program Elective - III	PEC-MTCM 201-204	Programme Elective - III	3	--	---	3	20	20	100	3	60		100
4	Program Elective - IV	PEC-MTCM 211-214	Programme Elective - IV	3	--	---	3	20	20	100	3	60		100
5	Core Lab III	PC-MTCML 503	Building Information Modeling Lab	--	02	---	1						50	50 #
6	Core Lab IV	PC-MTCML 504	Project Management Lab	--	02	---	1	--	--	--	--	--	50	50 #
7	Core - 5	PC-MTCM171	Mini Project	2			2						100*	100*
8	Audit-II	AU-PG03-04	Audit	2	--	---	AU	20	20	100	3	60		100
Total				16	04	02	18	80	80			240	250	650

NOTE - Test 1, Test 2 and end semester weightage marks will be added and shown as the theory marks in the mark sheet. Duration of Test 1, Test 2 is of 1 hour. For passing, Student must secure minimum 50% marks in each course with all heads of passing taken together and minimum 50% marks in the end semester examination.

Assessment criteria for laboratory/Tutorial work. i.e. weightage for assessment shall be as follows:

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* 50 marks for report and 50 marks for presentation, Examined by supervisor and at least one internal examiner.

- (i) Attendance in Laboratory/Tutorial = 20%,
- (ii) Journal/Drawing sheet/Sketch book = 40%,
- (iii) MCQ/Oral/Test = 40%.

Sr. No.	Code	Elective -III
1.	MTCMPEC 201	Legal Aspects in Construction
2.	MTCMPEC 202	Risk and Value Management
3.	MTCMPEC 203	International Construction Business
4.	MTCMPEC 204**	Infrastructure Planning and Managements (Online Course)

Sr. No.	Code	Elective – IV
1.	MTCMPEC 211	Management of Construction Resources
2.	MTCMPEC 212	Total Quality Management in Construction
3.	MTCMPEC 213	International Contracting
4.	MTCMPEC 214**	Modern Construction Materials (Online Course)

Audit -II Courses

Sr. No.	Code	Elective
1	AU-PG 03	Disaster Management
2	AU-PG 04	Stress Management by Yoga

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Sr. No	Course Type	Code	Course Name	Course Plan for Each Week (Hrs)			Credits	Evaluation (Marks)								Total
				Lectures	Laboratory	Tutorial		Test 1	Test 2	End Semester		End Semester Weightage (%)	In Semester Evaluation			
										Marks	Duration		Report	Seminar		
1	Program Elective - V	PEC-MTCM 301-303	Elective - V	3	--	---	3	20	20	100	3	60	--	--	100	
2	Open Elective - I	OE-PG01-07	Elective - VI	3	--	---	3	20	20	100	3	60	--	--	100	
3	Dissertation Phase 1	PC-MTCM311	Seminar on Literature Review			4 + 12 ^{\$}	12	Seminar on Literature Review					50	50	100*	
4								Seminar Stage-I					50	50	100*	
Total				6	00	16	18						100	100	400	

* Examined by supervisor and at least one internal examiner. ^{\$}Contact hours with mentor/supervisor/guide=4, Self learning hours=12

For passing, Student must secure minimum 50% marks in each Course with all head of passing taken together and minimum 50% marks in the end semester examination.

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Sr.No.	Code	Elective -V
1.	MTCMPEC 301	Repair, Rehabilitation and Retrofitting Techniques
2.	MTCMPEC 302	Appraisal & Implementation of Infrastructure Projects
3.	MTCMPEC 303	Management of Housing Projects

Sr. No.	Code	Open Elective Courses, Elective-VI
1.	OE-PG01	Business Analytics
2	OE-PG02*	Industrial Safety Engineering (Online Course)
3	OE-PG03	Operations Research
4	OE-PG04	Cost Management of Engineering Projects

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Sr. No	Course Type	Code	Course Name	Course Plan for Each Week (Hrs)			Credits	Evaluation (Marks)						Total	
				Lectures	Laboratory	Tutorial		Test 1	Test 2	End Semester		End Semester Weightage (%)	In Semester Evaluation		
										Marks	Duration		Report		Seminar
1	Dissertation Phase 2		Seminar Stage – II	---	---	4 + 12 ^{\$}	6	Seminar (Pre-Synopsis)				50*	50*	100	
2			Dissertation Viva-Voce	---	---	4 + 12 ^{\$}	10	Dissertation & Viva-voce				100**	50**	150	
Total				---	---	16	16						150	100	250

* Examined by supervisor and at least one internal examiner

** Examined by supervisor and one approved external examiner. ^{\$}Contact hours with mentor/supervisor/guide=4, Self learning hours=12

For passing, Student must secure minimum 50% marks in each Course with all head of passing taken together and minimum 50% marks in the end semester examination.

