



Curriculum for
M. Tech Programme
in
Environmental Engineering

DEPARTMENT OF ENVIRONMENTAL ENGINEERING
M. TECH (ENVIRONMENTAL ENGINEERING)

Programme Education Objectives

- I. Work in Environmental Engineering field which is involved with various aspects of planning, design, construction and operation of Environmental Engineering systems.
- II. Contribute to the academic and research in the field of environmental engineering.

Programme Outcomes

At the end of program student will be able to

- PO1 independently carry out research /investigation and development work to solve practical problems
- PO2 write and present a substantial technical report/document
- PO3 demonstrate a degree of mastery over the Environmental Engineering knowledge higher than civil and environmental engineering bachelor program

Kolhapur Institute of Technology's
College of Engineering (Autonomous), Kolhapur
Teaching and Evaluation scheme for
M.Tech Program in Environmental Engineering
Semester - I

Course Code	Course	Teaching Scheme				Evaluation Scheme			
		L	T	P	Credits	Component	Marks		
							Max. Marks	Min. for Passing	
PENV0101	Air Pollution Control	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0102	Solid &Hazardous Waste Management	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0103	Physico Chemical Processes for Water & Wastewater	3	-	-	3	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV01**	Professional Elective I	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV01**	Professional Elective II	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0161	Audit Course I: Research Methodology	2			-	ESE	100	40	40
PENV0131	Environmental Monitoring Lab. I	-	-	4	2	ISE	50	20	
						ESE (OE)	50	20	
PENV0132	Environmental Monitoring Lab. II	-	-	2	1	ISE	50	20	
						ESE (OE)	50	20	
PENV0141	Seminar	-	-	2	1	ISE	100	40	
	Total	15+2	4	8	23	Total Credit: 23 Total Contact Hours/Week: 27 + 2 hrs			

List of Professional Electives:

Course Code	Elective – I	Course Code	Elective – II
PENV0121	Industrial Health and Safety	PENV0124	Environmental Management
PENV0122	Optimization Techniques	PENV0125	Operation and Maintenance of treatment Plants
PENV0123	Project Management	PENV0126	Green Building

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Semester - II

Course Code	Course	Teaching Scheme				Evaluation Scheme			
						Component	Marks		
		L	T	P	Credits		Max. Marks	Min. for Passing	
PENV0201	Industrial Waste Treatment	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0202	Biological Wastewater Treatment	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0203	Environmental Impact Assessment & Legislation	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV02**	Professional Elective III	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV02**	Professional Elective IV	3	1	-	4	ISE 1	10	20	40
						MSE	30		
						ISE 2	10		
						ESE	50	20	
PENV0261	Audit Course II: Statistics and Data Driven Techniques	2	-	-	-	ESE	100	40	40
PENV0231	Treatability Studies Lab. I	-	-	2	1	ISE	50	20	
						ESE (OE)	50	20	
PENV0232	Treatability Studies Lab. II	-	-	4	2	ISE	50	20	
						ESE (OE)	50	20	
PENV0241	Pre-Dissertation Seminar	-	-	2	1	ISE	100	40	
PENV0242	Mini Project	-	-	2	1	ISE	50	20	
	Total	15+2	5	10	25	Total Credit: 25 Total Contact Hours/Week: 30 + 2 hrs			

List of Professional Electives:

Course Code	Elective – III	Course Code	Elective – IV
PENV0221	Remote Sensing & GIS	PENV0224	Environmental Management System
PENV0222	Watershed Management	PENV0225	Noise Pollution & Control
PENV0223	Environmental Modeling & Simulation	PENV0226	Environment Geotechnology

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Semester - III

Course Code	Course	Teaching Scheme				Evaluation Scheme		
		L	T	P	Credits	Component	Marks	
							Max. Marks	Min. for Passing
PENV0341	Industrial Training (During Summer Term)	-	-	-	2	ISE 1	50	20
PENV0351	Dissertation Phase I	-	-	5	2	ISE 1	50	20
		-	-		4	ISE 2	100	40
PENV0352	Dissertation Phase II	-	-		4	ESE (OE)	100	40
	Total	-	-	5	12		300	120
						Total Credit: 12 Average Contact Hours/Week/Student: 5 hrs		

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Semester - IV

Course Code	Course	Teaching Scheme				Evaluation Scheme		
		L	T	P	Credits	Component	Marks	
							Max. Marks	Min. for Passing
PENV0451	Dissertation Phase III	-	-	5	4	ISE 1	100	40
		-	-		4	ISE 2	100	40
PENV0452	Dissertation Phase IV	-	-		8	ESE (OE)	200	80
	Total	-	-	5	16		400	160
						Total Credit: 16 Average Contact Hours/Week/Student: 5 hrs		

Kolhapur Institute of Technology's
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Program Credit Distribution for
M.Tech Program in Environmental Engineering

Curriculum Component	Credits
Program Core	29
Professional Electives	16
Project/Seminar/Training/Internship	31
Total	76

