

M. Tech. Environmental Engineering 2nd Semester

S. No.	Course Code	Course Title	L	T	P	C
1	MA-502	Simulation & Modeling	2	1	0	3
2	CE-504	Solid and Hazardous Waste Mgt.	3	0	0	3
3	CE-505	Industrial Waste Management	3	0	0	3
4	CE-506	Environmental Lab II	0	0	3	2
5	-	Program Elective III	3	0	0	3
6	-	Program Elective IV	3	0	0	3
7	-	Open Elective II	-	-	-	3
Total			X	X	X	20

L=Lecture hours/week P=Practical hours/week T=Tutorial hours/week C=Credits

CE 504 Solid and Hazardous Waste Management

Cr. 3: (3-0-0)

Problems Associated with Solid Waste Disposal; Generation of Solid Wastes; Classification of Solid; Characteristics of Solid Waste; Analysis of Solid Waste; Onsite Handling, Storage and Processing of solid waste; Solid Waste collection Systems; Options for Transfer and Transport Systems; Processing and Disposal Methods; Recovery of Resources, Conversion Products and Energy generation from solid waste.

Hazardous waste definition; Environmental Legislation; Risk associated with hazardous waste & its Assessment; Waste Minimization; Priorities in hazardous waste management; hazardous waste treatment. Electronic Waste and its management

Reference Books:

1. Integrated Solid Waste Management: Tchobanoglous, Theisen and Vigil
2. Hazardous Waste Management: Wentz
3. Environmental Engineering, Howard Peavy, D. Rowe.

CE 505 Industrial Waste Treatment

Cr. 3: (3-0-0)

Problems of industrial wastewater in India; Effects of Discharges of Industrial Waste on Receiving Bodies of water, land and Sewer; Effluent and stream standards; Environmental legislation and standards related to industrial waste;

Industrial treatment Processes; Inventorization and treatment of Industrial Wastewater generated from Textile (cotton and Synthetic) Tannery, Pulp and Paper, Dairy, metal Plating (Chromium and Cyanide problem), Slaughter House, Distillery, dying and Printing, fertilizer, Copper & cement Industry; Potentials for Wastewater Recycle and Reuse in industries; Concept of Common effluent treatment plants.

Reference Books:

1. Industrial Water Pollution Control, W. Wesley Eckenfelder
2. Industrial Wastewater Treatment: Nemerow

CE 506 Environmental Lab - 2

Cr. 2: (0-0-3)

Air quality: Air for SPM, RSPM, NO₂ & SO₂ using High volume sampler, CO, NO_x, SO₂ using continuous analysers. Noise measurement using SLM
Use of softwares: like LOOP, SEWER, CALINE etc.