School of Planning and Architecture, Vijayawada
Department of Planning,
Lecture Plan

Name of Course: **Environmental Monitoring & Assessment Tools (MEPM 123)**

Programme & Sem:	MEPM – I Year II Sem
Course Duration:	04th January 2024 – 19th April 2024
Course Coordinator:	Dr. Arpan Paul Singh
Number of Credits:	3
Subject Category:	**Theory**
Total Periods/Week:	3
Internal Assessment	50 (minimum pass marks 50%)
End Evaluation	50 (minimum pass marks 50%) – Written Exam.
Total Marks	100 (to be converted to CGPA credit pattern as per regulations)

Subject Objective: Familiarization of instruments and procedures related to testing of quality of air, water and soil

	Academic Week		Work Description	Session Mode	References
Week 1	04-Jan	05-Jan	Fate and Transport of pollutants, Chemicals of Concern	Lecture	Trivedi P R, Environmental Pollution and control
Week 2	08-Jan	12-Jan	Parameters measuring the quality of Air, Water & Soil. Sample collection, Instruments, calibration & sensitivity	Lecture	Trivedi P R, Environmental Pollution and control
Week 3	15-Jan	19-Jan	Air Quality: Measuring TSPM, RSPM, SO2, Nox Stack Monitoring	Hands-on software training	1. Trivedi P R, Environmental Pollution and control 2. CPCB Guidelines, CPCB Manual
Week 4	22-Jan	26-Jan	Modelling Air Pollution	Hands-on software training	1. Trivedi P R, Environmental Pollution and control 2. CPCB Guidelines, CPCB Manual
Week 5	29-Jan	02-Feb	Meteorology: Weather, Temperature, relative humidity, rainfall, wind direction and speed.	Hands-on software training	1. Trivedi P R, Environmental Pollution and control 2. CPCB Guidelines, CPCB Manual
Week 6	05-Feb	09-Feb	Noise Pollution Modelling	Hands-on software training	1. Trivedi P R, Environmental Pollution and control 2. CPCB Guidelines, CPCB Manual
Week 7	12-Feb	16-Feb	**Internal Review I – 10 Marks**		
Week 8	19-Feb	23-Feb	Determining physical parameters of Water: Colour, Temperature, Turbidity, Odour, Electrical conductivity, Ph	Laboratory Experiment	B C Punimia, Water Supply Engineering

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	Academic Week		Work Description	Session Mode	References
Week 9	26-Feb	01-Mar	**Mid-Semester Exams - 20 Marks**		
Week 10	04-Mar	08-Mar	Determining Chemical parameters of Water: Alkalinity, Acidity	Laboratory Experiment	B C Punimia, Water Supply Engineering
Week 11	11-Mar	15-Mar	Determining Chemical parameters of Water: Total Solids, TDS, Total Hardness	Laboratory Experiment	B C Punimia, Water Supply Engineering
Week 12	18-Mar	22-Mar	Determining Biological parameters of Water: BOD & DO	Laboratory Experiment	B C Punimia, Water Supply Engineering
Week 13	25-Mar	29-Mar	Determination of Nitrates, Phosphates, sulphates, chlorides, potassium & sodium	Laboratory Experiment	B C Punimia, Water Supply Engineering
Week 14	01-Apr	05-Apr	Soil Quality - Determination of pH, EC, Moisture content, Phosphate, sodium and sodium	Laboratory Experiment	Trivedi P R, Environmental Pollution and control
Week 15	08-Apr	12-Apr	**Internal Review II - 20 Marks**		
Week 16	15-Apr	19-Apr	Case Study - Determining WQI for water sources of a city	Lab & Interactive Session	1. Trivedi P R, Environmental Pollution and control 2. CPCB Guidelines, CPCB Manual

Note:

1. Any other closed holidays as declared by SPAV shall supersede the above lecture plan. Holidays shown above may alter as per Notice from time to time.
2. Assessment Sessions may be re-scheduled, with prior intimation.
3. Reading lists provided is not exhaustive and is subject to addition – students are advised to follow progression of class to keep abreast of the new reading lists, if any.