



**LESSON PLAN FOR THE SESSION SEP- DEC 2024-25 (Odd Semester)**

**FACULTY NAME:** SRIVATHSA H U

**SUBJECT:** ENVIRONMENTAL PROTECTION & MANAGEMENT

**SUBJECT CODE:** 21CV753

**SEMESTER:** 7<sup>TH</sup>

Chapter Title	Class No	Date planned	Topics proposed to be covered	Portion to be covered in %	Remarks
<b>INTRODUCTION</b>			<b>Syllabus &amp; Course Outcomes</b>		
<b>MODULE 1</b>	1		Unique Characteristics of Environmental Problems - Systems approach to Corporate environmental management	<b>20%</b>	
	2		Classification of Environmental Impact Reduction Efforts		
	3		Business Charter for Sustainable Production and Consumption – Tools		
	4		Business strategy drivers and Barriers		
	5		Evolution of Environmental Stewardship		
	6		Environmental Management Principles - National policies on environment		
	7		Abatement of pollution and conservation of resources		
	8		Charter on Corporate responsibility for Environmental protection		
<b>MODULE 2</b>	9		Environmental quality objectives	<b>40%</b>	
	10		Rationale of Environmental standards		
	11		Concentration and Mass standards, Effluent and stream standards		
	12		Emission and ambient standards, Minimum national standards		
	13		Environmental performance evaluation: Indicators, benchmarking		
	14		Pollution control Vs Pollution Prevention - Opportunities and Barriers		
	15		Cleaner production and clean technology		
	16		Closing the loops, zero discharge technologies		
<b>MODULE 3</b>	17		ISO 14000 - EMS as per ISO 14001– benefits and barriers of EMS	<b>60%</b>	
	18		Concept of continual improvement and pollution prevention		
	19		Environmental policy – initial environmental review		
	20		Environmental aspect and impact analysis		
	21		Legal and other requirements- objectives and targets		
	22		Environmental management programs – structure and responsibility		
	23		Training awareness and competence- communication – documentation		
	24		2 document control – operational control – monitoring and measurement – management review		
<b>MODULE 4</b>	25		Environmental management system audits as per ISO 19011	<b>80%</b>	
	26		Roles and qualifications of auditors		

	27		Environmental performance indicators and their evaluation		
	28		Non-conformance – Corrective and preventive actions		
	29		Compliance audits		
	30		Waste audits and waste minimization planning		
	31		Environmental statement (form V)		
	32		Due diligence audit		
<b>MODULE 5</b>	33		Waste Audits	<b>100%</b>	
	34		Pollution Prevention opportunities in Textile		
	35		Pollution Prevention opportunities in Sugar		
	36		Pollution Prevention opportunities in Pulp & Paper		
	37		Pollution Prevention opportunities in Electroplating, Tanning industry		
	38		Pollution Prevention opportunities in Dairy, Cement, Chemical industries		
	39		Trans boundary movement		
	40		Disposal procedures of hazardous wastes		

**LIST OF TEXT BOOKS**

1. Christopher Sheldon and Mark Yoxon, “Installing Environmental management Systems – a step by step guide”
2. Earthscan Publications Ltd, London, 1999. 2. ISO 14001/14004: Environmental management systems – Requirements and Guidelines – International Organisation for Standardisation, 2004
3. ISO 19011: 2002, “Guidelines for quality and/or Environmental Management System auditing, Bureau of Indian Standards, New Delhi, 2002

**LIST OF REFERENCE BOOKS**

1. Paul L Bishop „Pollution Prevention: Fundamentals and Practice , McGraw- Hill International, Boston,2000.
2. Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations, Second Edition, NSF International, Ann Arbor, Michigan, January 2001.