

Syllabus of CBCS
E-Waste Management



SGT University, Gurugram

1. Name of the Department: FET						
2. Course Name	E-waste Management	L 2	T 0	P 0	C 2	
3. Course Code						
4. Type of Course (use tick mark)		Core ()	PE()		OE(✓)	
5. Pre-requisite (if any)		6. Frequency (use tick marks)	Even (✓)	Odd ()	Either Sem ()	Every Sem ()
7. Total Number of Lectures, Tutorials, Practical						
Lectures = 12		Tutorials = 0		Practical = 0		
8. Brief Syllabus This course will discuss the overall scenario of E-Waste management. At first, the present scenario of E-Waste management will be discussed along with the role of various stakeholders. Then, the effects of recycling and management of Electronic Waste on human health, environment and society will also be presented. The challenges of E-Waste management for smart cities will also be discussed taking few case studies from various developing nation around the globe.						
9. Learning objectives: <ul style="list-style-type: none"> To understand scenario of E-waste Discuss key elements of E-waste management Understand key terms associated with E- waste Imparting life skills about E waste management in routine daily life to minimize the hazards and to understand the regulations to contribute in effective management throughout the society.						
10. Course Outcomes (COs): On completion of this course, students will be able to- <ul style="list-style-type: none"> Learn about the various aspects of E-waste Understand the role of various stakeholders-producers, manufactures etc. 						
11. Unit wise detailed content						
Unit-1	Number of lectures = 3	Title of the unit: Introduction				
What is E-Waste, Indian and global scenario of e-Waste, Growth of Electrical and Electronics industry in India, E-waste generation in India, Composition of e-waste, Possible hazardous substances present in e-waste, Environmental and Health implications.						
Unit - 2	Number of lectures = 3	Title of the unit:E-WASTE LEGISLATION				
Regulatory regime for e-waste in India, The hazardous waste(Management and Handling) rules 2003, E-waste management rules 2015, Regulatory compliance including roles and responsibility of different stakeholders – producer, manufacturer, consumer etc., Proposed reduction in the use of hazardous substances(RoHS), Extended producer responsibility (EPR).						
Unit - 3	Number of lectures = 3	Title of the unit:END OF LIFE MANAGEMENT OF E-WASTE				
Historic methods of waste disposal – dumping, burning, landfill;Recycling and recovery technologies –						

sorting, crushing, separation; Life cycle assessment of a product – introduction; Case study – optimal planning for computer waste.		
Unit - 4	Number of lectures = 3	Title of the unit:ENVIRONMENTALLY SOUND E-WASTE MANAGEMENT
Emerging recycling and recovery technologies, Guidelines for environmentally sound management of e-waste, Environmentally sound treatment technology for e-waste, Guidelines for establishment of integrated e-waste recycling and treatment facility, Case studies and unique initiatives from around the world.		
12. Brief Description of self-learning / E-learning component		
13. Books Recommended		
TEXT BOOKS:		
(1) Johri R., “E-waste: implications, regulations, and management in India and current global best practices”, TERI Press, New Delhi.		

Assessment Method: One Class test +Mid-term exam

Assessment: Summative: (40 marks= 20 Subjective+ 20 MCQs)

Formative/Class test: (10 marks)