Name of the Programme: UG General Education Programmes
Course Code: VAC-111
Title of the Course: E-Waste Management
Number of Credits: 02
Effective from AY: 2023-24

Pre-requisites	Nil	
Course Objectives:	This course is intended to: • Introduce to students with the scenario of E-waste. • Understand key terms associated with E- waste. • To impart life skills about E waste management in routine daily life to minimize the hazards. Create awareness of the regulations related to E-waste to contribute in effective management throughout the society	
Content:	**Unit 1: Introduction to E-waste** Introduction. E- waste; composition and generation. Global context in e- waste; Growth of Electrical and Electronics industry in India, E-waste generation in India, E-waste pollutants, E waste hazardous properties, Effects of pollutant (E- waste) on human health and surrounding environment, domestic e-waste disposal. Essential factors in global waste trade economy, Waste trading as a quint essential part of electronic recycling, Free trade agreements as a means of waste trading. Import of hazardous e-waste in India; India's stand on liberalizing import rules, E-waste economy in the organized and unorganized sector. Estimation and recycling of e-waste in metro cities of India. E-waste control measures:Need for stringent health safeguards and environmental protection laws in India, Extended Producers Responsibility (EPR), Import of e-waste permissions, Producer-Public-Government cooperation, Administrative Controls & Engineering controls, monitoring of compliance of Rules, Effective regulatory mechanism strengthened by manpower and technical expertise, Reduction of waste at source.	**15 hours**
	Unit 2: E-waste Management Basic principles of E waste management, Component of E waste management, Technologies for recovery of resources from electronic waste: Recycling and recovery technologies – resource recovery potential of e-waste, steps in recycling and recovery of materials-mechanical processing, technologies for recovery of materials, occupational and environmental health perspectives of recycling e-waste in India.	**15 hours**
Pedagogy:	Lectures/Experiential Learning	

References/ Readings	1. Johri R., E-waste: implications, regulations, and management in India and current global best practices, TERI Press, New Delhi ,2008 2. Fowler B, Electronic Waste, Elsevier, 2017 3. Bhagat-Ganguly, VarshaE-Waste Management: Challenges and Opportunities in India,Routledge, New Delhi, 2021 4. Nautiyal, Navtika Singh and ShuchitaAgarwal (ed) Future of e-Waste Management: Challenges and Opportunities, Thomson Reuters, 2021. ISBN 13: 978-9390529858
Course Outcomes	Students will, be able to • Understand the environmental impacts of e-waste. • Describe the process recycling of e-waste. • Distinguish the role of various national and internal act and laws applicable for e-waste management and handling. • Analyse the e – waste management measures proposed under national and global legislations.