



Central International University-CIU

Diversity Learning Institute-DLI

Twikatane e.V Germany

Skills Curriculum/Syllabus

Course Duration: 3 to 6 months

Course: E-Waste Recycling and Disposal

Course Objectives

The objectives of the course "E-Waste Recycling and Disposal" may include:

1. Understanding E-Waste: To develop a comprehensive understanding of electronic waste (e-waste), including its types, composition, and potential environmental and health hazards associated with improper disposal.
2. Legal and Regulatory Framework: To familiarize oneself with national and international laws, regulations, and guidelines pertaining to e-waste management and disposal, ensuring compliance with relevant legislation.
3. E-Waste Collection and Sorting: To learn effective methods and strategies for collecting, sorting, and categorizing e-waste materials to facilitate proper recycling and disposal processes.

4. E-Waste Recycling Technologies: To gain knowledge of various recycling technologies and processes used for e-waste treatment, including dismantling, separation of components, material recovery, and resource extraction.
5. Hazardous Substance Management: To understand the management of hazardous substances found in e-waste, such as lead, mercury, cadmium, and brominated flame retardants, ensuring safe handling and disposal methods.
6. Recycling Infrastructure Development: To explore the establishment of e-waste recycling infrastructure, including the design and operation of recycling facilities, waste management systems, and the integration of sustainable practices.
7. Circular Economy Approach: To promote the concept of a circular economy by emphasizing the importance of resource recovery, material reuse, and the reduction of waste generation through e-waste recycling and sustainable practices.
8. Environmental Impact Assessment: To assess the environmental impacts of e-waste recycling and disposal methods, evaluating their effectiveness in minimizing pollution, reducing greenhouse gas emissions, and conserving resources.
9. Public Awareness and Education: To recognize the significance of public awareness campaigns and educational initiatives in promoting responsible e-waste management practices, fostering a culture of recycling and responsible consumption.
10. Social and Economic Implications: To explore the social and economic implications of e-waste recycling and disposal, including job creation, income generation, entrepreneurship opportunities, and the potential for poverty alleviation.
11. International Cooperation and Best Practices: To examine international cooperation mechanisms, partnerships, and best practices in e-waste recycling and disposal, fostering knowledge exchange and collaboration among countries.
12. Sustainable E-Waste Management Strategies: To develop sustainable e-waste management strategies, considering the entire lifecycle of electronic products, from design and production to end-of-life treatment, in order to minimize e-waste generation and maximize resource recovery.

By pursuing these objectives, the course on E-Waste Recycling and Disposal aims to equip individuals with the knowledge and skills necessary to effectively manage e-waste, minimize its environmental and health impacts, and contribute to the transition towards a more sustainable and circular economy.

(A) Syllabus Outline: E-Waste Recycling and Disposal

Module 1: Introduction to E-Waste Recycling

- Duration: 8 hours

Module 2: E-Waste Management Regulations and Policies

- Duration: 10 hours

Module 3: E-Waste Collection and Sorting Techniques

- Duration: 12 hours

Module 4: E-Waste Disassembly and Component Recovery

- Duration: 14 hours

Module 5: E-Waste Recycling Technologies

- Duration: 16 hours

Module 6: E-Waste Treatment and Safe Disposal Methods

- Duration: 10 hours

Module 7: E-Waste Recycling Business and Entrepreneurship

- Duration: 8 hours