MOI UNIVERSITY
SCHOOL OF INFORMATION SCIENCES
DEPARTMENT OF INFORMATION TECHNOLOGY
COURSE OUTLINE : INF 314: E-WASTE MANAGEMENT 2021/2022 SEM II

Course Instructor: Joram Mutai **Cell Phone:** 0722723373 **E-mail: jkmutai@gmail.com**

Purpose of the Course

The rapid growth of the ICT sector in Kenya calls for proper management and disposal of electronic equipment and related accessories after their end of useful life.

The purpose of this course is to equip the learner with knowledge and skills in sustainable management of e-waste.

Expected Learning Outcomes

By the end of the course, the learner should be able to:

- Identify various sources of e-waste and hazardous components of e-waste
- Establish the occupational and environmental impact of e-waste and understand the importance of effective e-waste management on sustainability
- Determine the best e-waste management and disposal options and strategies.
- Establish the economic benefits of e-waste and demonstrate an understanding of e-waste standards and regulations

Lecture Topics

1. ICT's and Society
2. Introduction To E-Waste and E-Waste Management
3. E-Waste Sources and Classification.
4. E-Waste Management Stakeholders and their Responsibilities
5. E-Wastes and Other Solid Wastes
6. E-Waste Management and the Environment, Disposal methods E-waste management frameworks, Green Product Life Cycle Management (PLM), and Extended producer responsibility
7. Green Computing and Information Technologies.
8. Case studies on E-Waste handling in the electronic industry.

Mode of Delivery

This is a theory-based course and delivery shall be by lectures, seminars, group-based learning and independent studies supplemented by online interactions (MUSOMI), discussions, and exercises.

Course Monitoring and Evaluation

The course will be monitored and evaluated using students' class attendance registers, C.A.Ts, end of semester examination,

Assessment

Continuous Assessment Tests (C.A.T's)

- Sit-in CAT 15%
- Group Seminar Presentations 15%

End of semester written examination 70%

Learning Materials

Books/Journal references, internet/online sources and any other relevant material.

Core Reference Material

1. R.E. Hester & M. Harrison (2009) *Electronic waste Management*, Design, Analysis and Application, Cambridge Royal Society of Chemistry.
2. Ming H. Wong, Peeranart Kiddee, Ravi Naidu (2013) *Electronic waste management approaches: An overview.* Waste Management 33 (2013) 1237–1250
3. Sunil Herat and P Agamuthu (2012) *E-waste: a problem or an opportunity? Review of issues, challenges and solutions in Asian countries.* Waste Management & Research 30(11) 1113–1129
4. C. Nnorom and O. Osibanjo (2007) *The challenge of electronic waste (e-waste) management in developing countries.* Waste Management & Research *2007: 25: 489–501*

POLICIES:

-Failure to sit for CAT's and/or hand in any continuous assessment work will lead to disqualification from sitting for end-of-semester examination.

-80% rule applies: A student who fails to attend 80% of all the classes in a semester is disqualified from sitting for the final exam.

Course Instructor: Sign  **Date:** …..16/09/2022…

All the Best in your studies