

**MURANG’A UNIVERSITY OF TECHNOLOGY**

**COURSE OUTLINE**

**Unit Code: IT/OS/ICT/CR/4/6**

**Unit Title**: ICT SYSTEM SUPPORT

**Department:** Information Technology

**Lecturer’s Name:** Geoffrey Mutiso

**Lecturer’s Tel. No:** 0797354218

**Email Address:**[milesjeffn5@gmail.com](mailto:milesjeffn5@gmail.com)

**Duration of unit**: 150 hours

**Unit Description:**

This unit covers the competencies required for **performing ICT Infrastructure support**. It

involves identification and Documentation of ICT infrastructure equipment, Evaluation of the

possible causes of failures of the components, diagnose and fix problems, test component

performance and perform user training

**Summary of Learning Outcomes:**

By the end of the unit, the trainee should be able to:

1. Identify and Document ICT infrastructure
2. Evaluate the state of performance and possible causes of failures
3. Diagnose and fix problems
4. Test component performance
5. Perform User training

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| **week** | **Lesson** | **Topic** | **Content** |
| 1 | Lesson 1 | ICT system components and infrastructure | Define ICT and ICT system  Definition of ICT infrastructure  Components of ICT infrastructure   * Software * Hardware * People * Data * Procedures * Information   ICT infrastructure Specifications. |
| Lesson 2 | Types of ICT infrastructure | Types of ICT infrastructure   * Computer hardware platforms * Operating system platforms * Enterprise and other software application * Data management and storage * Networking and telecommunications platforms * Internet platforms * End users |
| 2 | Lesson 1 | Tools for ICT infrastructural support and safety measures | Tools for ICT infrastructural support are identified as per the audit report  Safety precautions of ICT Infrastructure.  Documentation of Infrastructure assets and their operational and service status. |
| Lesson 2 | Troubleshooting and cause of failures | Define troubleshooting  Troubleshooting Process Steps  Common problems and solutions.  Possible causes of failure   * Unstable power * Malfunctioning * Mechanical faults   Environmental factors   * Natural disasters * Dust * Ventilation   User factors   * Malicious damage * Accidents * Lack of maintenance |
| 3 | Lesson 1 | **CAT 1** |  |
| Lesson 2 | Repair and replacement  (***practical’***s) | Carry out repair or replacement of failed components.  Test the repaired or replaced component.  Adopt component failure Prevention measures  Generate reports |
| 4 | Lesson 1 | Tools and equipment for diagnosing and fixing problem | Define Diagnostic terms.  Identify diagnostic and repair tools and their functions  Tools and equipment for diagnosing and fixing the problem. |
| Lesson 2 |  | Hardware related problems.  Software related problems.  Internet/network related problems  User related problems |
| 5 | Lesson 1 | ICT policies | ICT policies  How to write an ICT policy  Role of ICT policies in an organization.  Some issues on ICT and internet policy and regulations  Security policies |
| Lesson 2 | ***Practical*** | Practical |
| 6 | Lesson 1 | **CAT 2** |  |
| Lesson 2 | Report writing | How to prepare ICT report |
| 7 | Lesson 1 | Test components performance  ***(p)*** | Test Hardware performance.  Test Software performance |
|  | Lesson 2 | ***Practical exercises*** | Test Internet/network performance.  Recommendation from performance analysis.  Performance test report |
| 8 | Lesson 1 | Practical self-assessments | PSA |
| Lesson 2 |  | PSA |
| 9 | Lesson 1 | Perform User training | User training procedures  Meaning of user training  Importance of user training |
| Lesson 2 |  | Process of carrying out ICT training  Implement end user training plan |
| 10 | Lesson 1 | **CAT 3** |  |
| Lesson 2 | RECAP |  |