

## COMPUTER REPAIR AND MAINTENANCE

**UNIT CODE:** SEC/CU/CS/CR/01/5/A

### Relationship to Occupational Standards

This unit addresses the unit of competency: Perform computer repair and maintenance

**Duration of Unit:** 120 hours

### Unit Description

This unit covers the competency required to perform computer repair and maintenance. It involves performing troubleshooting, dismantling faulty components, repairing/replacing faulty components, upgrading computer software/hardware, and preparing and documenting maintenance reports.

### Summary of Learning Outcomes

1. Perform troubleshooting
2. Dismantle faulty components
3. Repair/Replace faulty components
4. Upgrade computer hardware/software
5. Prepare and document maintenance report

### Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Perform troubleshooting	<ul style="list-style-type: none"><li>• Meaning terms</li><li>• Fundamentals of computer operations</li><li>• Factors affecting computers performance<ul style="list-style-type: none"><li>• Hardware</li><li>• Software</li></ul></li><li>• Computer testing</li><li>• Tools used in computer testing<ul style="list-style-type: none"><li>• Software</li><li>• Hardware</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Written tests</li><li>• Oral questioning</li><li>• Observation</li><li>• Practical tests</li></ul>
2. Dismantle faulty components	<ul style="list-style-type: none"><li>• Meaning of terms</li><li>• Computer dismantling tools</li><li>• Computer components and dismantling procedures</li><li>• Handling of computer components</li><li>• Safety precautions<ul style="list-style-type: none"><li>• Hardware</li><li>• Software</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Written tests</li><li>• Observation</li><li>• Oral questioning</li><li>• Practical tests</li></ul>

Learning Outcome	Content	Suggested Assessment Methods
	<ul style="list-style-type: none"> <li>• Personnel</li> </ul>	
3. Repair/Replace faulty components	<ul style="list-style-type: none"> <li>• Meaning of terms</li> <li>• Computer diagnostic procedures               <ul style="list-style-type: none"> <li>• Tools and instruments used in computer diagnosis process</li> </ul> </li> <li>• Procedures in repair/ replacements of computer components</li> <li>• Testing and replacements of repaired/replaced computer components</li> <li>• Procedures in computer repair               <ul style="list-style-type: none"> <li>• Hardware</li> <li>• Software</li> </ul> </li> <li>• Assembling of computer components</li> </ul>	<ul style="list-style-type: none"> <li>• Written tests</li> <li>• Observation</li> <li>• Oral questioning</li> <li>• Practical tests</li> </ul>
4. Upgrade and update computer hardware/software	<ul style="list-style-type: none"> <li>• Meaning of terms</li> <li>• Procedures in updating and upgrading computer software and hardware</li> <li>• Software and hardware licensing procedure</li> <li>• Testing of upgraded and updated computer hardware and software</li> </ul>	<ul style="list-style-type: none"> <li>• Written tests</li> <li>• Observation</li> <li>• Oral questioning</li> <li>• Practical tests</li> </ul>
5. Prepare and document maintenance report	<ul style="list-style-type: none"> <li>• Preparation of maintenance report</li> <li>• Sharing of maintenance report</li> <li>• Filing of maintenance report</li> </ul>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Oral questioning</li> <li>• Practical tests</li> <li>• Written tests</li> </ul>

#### Suggested Methods of Instruction

- Demonstration by trainer
- Practice by the trainee
- Field trips
- On-job-training
- Discussions

## Recommended Resources

<b>Tools</b> <ul style="list-style-type: none"><li>• Measuring tools</li><li>• Hardware and software diagnostic tools</li></ul>	<b>Materials and supplies</b> <ul style="list-style-type: none"><li>• Stationery</li><li>• Assorted Cables</li><li>• Assorted protective devices</li><li>• Accessories</li></ul>
<b>Equipment</b> <ul style="list-style-type: none"><li>• Computer</li><li>• Printers</li><li>• Monitors</li><li>• Projectors</li></ul>	<b>Reference materials</b> <ul style="list-style-type: none"><li>• Standards</li><li>• Internet</li><li>• Organization ICT polices</li><li>• Occupational Safety and Health Act (OSHA)</li><li>• National Environmental Management Authority (NEMA) regulations</li><li>• National Construction Authority (NCA) regulations</li><li>• Tables</li></ul>