

**LEARNER GUIDE**

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| **FURTHER EDUCATION AND TRAINING CERTIFICATE:**  **LIBRARY PRACTICE**  **ID 50520 - LEVEL 4 – CREDITS 132.** |

**MONITOR AND CONTROL THE MAINTENANCE OF OFFICE EQUIPMENT**

**SAQA: 13931**

**Learner Information (Please Complete this Section)**

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| Name & Surname: |  |
| Organisation/Venue: |  |
| Workplace Unit/Dept: |  |
| Facilitator Name: |  |

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**Learner Guide Information**

The purpose of this Learner Guide is to provide learners with the necessary knowledge and provide a comprehensive overview relating to the following skills program or unit standard:

**MONITOR AND CONTROL THE MAINTENANCE OF OFFICE EQUIPMENT**, which has been developed for the qualification,: **FURTHER EDUCATION AND TRAINING CERTIFICATE: LIBRARY PRACTICE ID 50520 - LEVEL 4 – CREDITS 132.**This Learner Guide is to improve the skills and knowledge of learners, and thus enabling them to effectively and efficiently complete specific tasks. Learners are to attend training workshops/sessions according to SAQA requirements as well as specified by their organization. These workshops/sessions are presented, and conducted by a qualified facilitator.

**Assessment Criteria**

The assessment process involves collecting and interpreting evidence about the learner’s ability to perform a task, which will be achieved through a combination of formative and summative assessments. In this guide there may be assessments in the form of activities, assignments, tasks or projects, as well as workplace practical tasks. The learner is to perform these tasks and provide required and ***authentic*** evidence in their portfolio of evidence.

To qualify and receive credits towards the learning programme or unit standard, a registered assessor and moderator will conduct an evaluation and assessment of the learner’s portfolio of evidence and competency.

**Outcomes**

**The qualifying learner is capable of:**

* Demonstrating and understanding of office equipment maintenance procedures and processes
* Conducting routine maintenance on designated office equipment

**Learner Responsibility**

The responsibility of learning rest with the learner, so:

* Be proactive and ask questions,
* Seek assistance and help from your facilitators, if required.

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| **Learning Unit1** | **US: 13931, NQF LEVEL 3 WORTH 4 CREDITS**  **MONITOR AND CONTROL THE MAINTENANCE OF OFFICE EQUIPMENT** |
| **Unit Standard Purpose** | * Learners will be learning towards obtaining a national qualification at level 3 or are working in an administrative and SMME (Small, Medium and Micro Business) environment, where the acquisition of competence against this standard will add value to the learner`s fob, or chances of finding employment. * Learners will be well positioned to extend their learning and practice into other areas in the business environment, or to strive towards professional standards and improved performance.   **The qualifying learner is capable of:**   * Demonstrating and understanding of office equipment maintenance procedures and processes * Conducting routine maintenance on designated office equipment |
| **Learning Assumed to be in Place** | * Learners will have demonstrated competence in communication at NQF level 2 or equivalent. |

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| **SESSION 1**  **SO 1** | **DEMONSTRATE AN UNDERSTANDING OF OFFICE EQUIPMENT MAINTENANCE PROCEDURES AND PROCESSES** |
| **Learning Outcomes**  **(Assessment Criteria)** | * The importance of conducting routine maintenance on office equipment is explained. * Office equipment for maintenance is identified and listed. * Procedures for maintenance of office equipment are explained. * Appropriate personnel are notified of impending maintenance. |

**List of Types of Office Equipment**

**Stationary**

Stationary is a traditional part of the office environment, and continues to be essential in the 21st century. Stationary includes items such as pens, rulers, staplers, paperclips and other equipment used to make notes and perform basic tasks connected to activities such as idea brainstorming and recordkeeping, for example. Notepads are commonly used to record minutes in meetings, while post-it notes are used to communicate short messages effectively within the office.

**Computers**

Computers are used for a large amount of office-based tasks. Word processor programs are utilized to type up notes and minutes and to produce reports and communications, while spreadsheet programs will be used in account keeping. Computers allow access to the Internet, which provides both internal and external communication tools in the form of e-mail, as well as immense research capabilities. The type of computer used by an office will vary based on what work is required. A more up-to-date computer will be needed for desktop publishing and graphics production packages, for example, while office workers may use laptops, especially if they regularly work while on the move.

**Computer-based Hardware**

Several commonly found pieces of office equipment are designed for use alongside computer systems, and are typically connected to them. These include printers, which enable office workers to produce hard copies of documents such as reports and accounts, and scanners. Scanners allow professionals to reproduce documents and graphics onto computers in digital form, for example for use on a company website, and are available in a range of resolutions which offer varying levels of detail. More expensive scanners, those with resolutions of 3200 DPI (dots per inch) and more, are suitable for graphic designers and professionals in similar fields.

**Document Manipulation**

Other useful machines generally found in offices include the photocopier, which allows workers to make multiple copies of a document for reference and for sharing with colleagues, and shredders. The shredder is increasingly important with the prevalence of identity fraud. Shredders are used to destroy documents containing potentially important information about an individual's or company's accounts, preventing would-be fraudsters from using this information.

**Communications**

Professionals need to communicate with individuals both within their company and outside, so most offices will utilize a telephone system. This system will connect all of the workers in the office together and will have built-in features, which enable an individual to divert a call to a colleague, for example. Other functions of phone systems include conferencing, which allows multiple workers to join in the same conversation, and message recording capabilities. Professionals might also use advanced cell phones, such as BlackBerry devices, while away from their desk.

**Importance**

Each piece of office equipment requires periodic preventative and corrective maintenance over the course of time in order to keep it in working condition. If equipment is broken, employees cannot properly perform their job functions and productivity slows down or even stops. As a result, the equipment must be repaired properly, in a timely and cost effective manner. There are a few options to choose from to ensure this happens. Manufacturers offer maintenance agreements on their equipment to deal with the financial uncertainty associated with equipment maintenance and repair. In exchange for a fixed annual fee, the manufacturer will bear the financial risk and handle the equipment maintenance and repairs. Maintenance agreements cover equipment for a certain time period, which should be clearly identified in the agreement. In the absence of a maintenance agreement, an equipment owner can elect to pay for repairs on a time & materials basis (T&M); this means that the owner pays for parts, labor, and travel on an as-needed basis. However, several closely spaced equipment failures can severely impact a company's cash flow.

No matter what field of work you are in, you need to have good equipment maintenance. It doesn't matter if you work in an office and work on your computer or other IT equipment, are out in the field driving around in a company vehicle, or even in a shop or warehouse. You need to have not only regular maintenance, but also have preventative maintenance done as well. If you don't make sure that regular maintenance is performed on your equipment, you will soon have numerous problems. Your vehicles, without the right fluids and oil, can blow a motor. Without regular cleanings, your saws, nail guns and other equipment will seize up. Even computers, printers and other related equipment needs proper maintenance to prevent them from crashing.

You may think that the time it takes to do routine maintenance lowers productivity. But while it may take a half an hour or even more to do regular checks, it is far less costly than the machine or other equipment breaking down, and having a specialized **technician** come and fix it, or worse, having to replace the unit altogether. Not only will this create more downtime, but the costs can be enormous. There are many software **programs** that can help you with regular equipment maintenance. They can help you set up a routine schedule, walk you through the job itself, and in some cases, especially when it comes to computers, have it set up so that the maintenance is done while you are out of the office, automatically. This means that there really isn't any down time at all. At the end of the scheduled sweep, defragmentation, and disk corrections, a report will appear and you can go over it at your earliest convenience.

There are some things you need to be on the look out for when it comes to equipment maintenance software programs. The first and foremost is that it should be easy to learn and understand. If it is too complicated, chances are you aren't going to take the time to learn it, and then it is a waste of money. The second thing about the software is that is should be quick, easy to use, and does its job in a timely manner. Sure, if you haven't been using regular maintenance, it is going to take longer to work the first few times, there will be a lot of different tasks it will have to perform. The more it is used, the faster it should be.

There should be a lot of different features, especially when it comes to computer cleanup software. You want software that covers many different aspects, cleaning up disks, defragmenting programs, as well as anti virus scanning, and checking your firewalls. The more you are able to have in one software package, the better. Having too many different kinds of software can load down your maintenance, and cause redundancies. The [equipment maintenance software](http://www.equipmentmaintenancesoftware.net/) should also make it easy to schedule maintenance, and make it easy to track its history. You should be able to look at these whenever you want, and be able to find it quickly. Some of the other things to consider are cost, how easy it is to contact customer services, and how long the company offering the software has been in business

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| **SESSION 2**  **SO 2** | **MONITOR AND LIAISE WITH MAINTENANCE PROVIDERS** |
| **Learning Outcomes**  **(Assessment Criteria)** | * Maintenance providers are identified, listed and contact details are obtained. * Suggestions and recommendations for suitable maintenance providers are submitted. * Maintenance agreements are studied and filed. * Maintenance providers are contacted to repair or maintain equipment where relevant. * Any problems with maintenance providers are identified and reported. |

**Maintenance** procedures typically refer to inspection and repairs of various machines or buildings to ensure there are no problems that might halt production or use. There are various types of maintenance procedures, including preventative maintenance, that ensure equipment and machinery continue to operate smoothly and efficiently. Other procedures may include maintenance management, during which supervisors organize repairs for a company.

Many offices now depend on a copier, fax, printer, scanner, or a all in one model, in their office to conduct matters of business. With a maintenance agreement, you ensure that in cases of technical problems, your equipment will be repaired as quickly as possible. Reducing down time with minimal interruption in the flow of your office.

A **maintenance agreement** for office equipment is a service contract providing for an outside company to keep your office equipment in good operating condition, or to come in when called to fix a problem with the equipment. If you think about it, almost every business utilizes electronic equipment in one way or another. Each piece of equipment requires periodic maintenance over the course of time in order to keep it in working condition. When equipment breaks down, there are costs associated with repairing it. Manufacturers offer maintenance agreements on their equipment to deal with the financial uncertainty associated with equipment maintenance and repair. In exchange for a fixed annual fee, the manufacturer will bear the financial risk and handle the equipment maintenance and repairs. Maintenance agreements cover equipment for a certain time period, which should be clearly identified in the agreement. In the absence of a maintenance agreement, an equipment owner can elect to pay for repairs on a time & materials basis (T&M); this means that the owner pays for parts, labor, and travel on an as-needed basis. However, several closely spaced equipment failures can severely impact a company's cash flow.

**Record Keeping System**

Organize your preventative maintenance program by implementing a record keeping system. Track equipment failures, part replacements and the frequency of equipment use. Use software, printed checklists or whichever methods works best for your organization. All this information will be instrumental in creating a baseline for developing a preventative maintenance repair schedule.

**Repair Schedules**

Based on the information you've been collecting in your record keeping database, you can devise a schedule for your maintenance program. As long as you follow the schedule and execute it properly, you should be able to reduce equipment failures and repair costs. Automate your schedule with software so that one person doesn't have the burden of keeping track. However, one person should be in charge of making sure everyone else follows the schedule.

**Teamwork**

Management should be involved at some level so that the employees know the importance of the preventative maintenance program to the company. Use teamwork initiatives like awards and free lunches to motivate your staff to follow the maintenance program schedule. You can also give individual recognition. Create a training program in which senior operators work with newer staff for on-the-job training. If more people know how to do the work, then it reduces your need to call outside people if one of your team members goes on vacation. Publish the numbers so that your employees see what their hard work has accomplished.

**Inventories and lists of supplies**

An inventory shows details of all equipment and stores that currently belong to the organisation.  Your organisation may have a number of separate inventories, for example, for different sections or locations, or separate inventories for consumables, office equipment and vehicles. Most offices keep records of equipment, and consumables such as paper, ink, CD ROMs, bulbs or batteries.  You need to be aware of procedures for dealing with supplies and consumables, such as stationery, toner, blank CDs and batteries, including:

* Who is responsible for restocking supplies?
* Is there a register to track supplies used, or are they freely available?
* Is there a procedure for noting low stock levels?

Lists of supplies can be used to track the use of consumable items, such as stationery and first aid supplies. There may also be a procedure for using stocks of supplies.  Lists are often attached to the outside of a stock cupboard to enable users to make a note of any items that are removed, so that stock can be monitored and re-ordered. Other information that you may document in the inventory includes details of where equipment is normally kept, for example, storage room or equipment shed.

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| **SESSION 3**  **SO 3** | **CONDUCT ROUTINE MAINTENANCE ON DESIGNATED OFFICE EQUIPMENT** |
| **Learning Outcomes**  **(Assessment Criteria)** | * Type of routine maintenance is identified and explained. * Safety measures for routine maintenance are described. * Location of maintenance equipment and accessories are identified and procedure for retrieval is explained. * Routine maintenance is conducted according to manufacturers' instructions. * Office equipment is checked to ensure it is in working order before use. * Maintenance materials are disposed of in accordance with organisational requirements. * Routine maintenance is conducted within agreed time frames. |

**Routine Maintenance** is work that is planned and performed on a routine basis

**Maintenance types**

Generally speaking, there are three types of maintenance in use:

**Preventive maintenance**, where equipment is maintained before break down occurs. This type of maintenance has many different variations and is subject of various researches to determine best and most efficient way to maintain equipment. Recent studies have shown that Preventive maintenance is effective in preventing age related failures of the equipment. For random failure patterns which amount to 80% of the failure patterns, condition monitoring proves to be effective.

**Corrective maintenance**, where equipment is maintained after break down. This maintenance is often most expensive because worn equipment can damage other parts and cause multiple damage.

**Reliability centered maintenance**, often known as RCM, is a process to ensure that assets continue to do what their users require in their present operating context.

**Maintenance**

Much of the equipment used in the workplace has regular maintenance requirements, or needs repair at some time, for example:

* to replace consumables or broken parts
* to deal with malfunctions
* to arrange for external servicing or repair.

Some problems are fairly simple and can often be solved immediately by the operator.  Look for an instruction manual or troubleshooting tips for solving basic problems. You also need to be aware of any procedures that relate to these tasks, for example, recording consumables used so that these can be re-ordered. If problems are more complex, advise your supervisor or the person responsible for equipment repair of the problem.  Consider:

* Is there a designated person responsible for maintaining equipment?
* Is a specialist technician required?
* Will your actions affect the warranty or pose a danger to you or others?

Some problems should be left to the experts.  Never try to open the casing of any machinery or electronic equipment, disassemble any equipment components, or interfere with any part of the power supply.

**Regular maintenance can keep your office computer running.**

Proper care of your office equipment will keep your business running smoothly. A good cleaning every few months will keep keyboard keys from sticking and equipment from overheating. Regular maintenance may reduce downtime and maintenance calls for your computers, printers and fax machines.

**Instructions**

**Computers**

1 Keep computers in a dry environment, away from sources of excessive heat or moisture. Do not place a computer next to a heating source or drink your coffee while at the computer.

2 Wipe screen and keyboard regularly with a static-free cloth and cleaner designed for use on computers.

**How to Clean up Computer**

3 Use compressed air to clean debris from between the keys on the keyboard. Turn the keyboard over and shake loose dirt. Use compressed air again to get leftover debris from between the keys.

4 Keep ventilation holes on the computer clear of blockages from dust or other items on the desk to prevent overheating. Use compressed air to blow dust and debris from all vents.

5 Plug all computers into surge protectors.

**Printers**

6 Open removable parts of the printer and wipe the insides with a dry, clean cloth.

7 Check the manufacturer specifications on paper weight and size. Verify that the paper you are using does not exceed the recommended weight and size. Paper weight indicates the thickness of the paper and can be found on the manufacturer's packaging.

8 Do not overfill the paper tray.

9 Remove all jammed paper completely.

10 Change ink as needed. Open the top of the printer and remove the ink cartridge. Specifications should be printed on the side to help you order another cartridge from your local office retail store or supplier. If you cannot find the ink cartridge, refer to manufacturer guidelines in the printer's manual.

**Fax Machines**

11 Keep a fax machine in a dry room. Humidity can cause paper to stick together.

12 Place fax machines at least six inches from walls for adequate ventilation around the equipment.

13 Fan paper with your hand before inserting it in the fax machine. This prevents the machine from taking too much paper and jamming in operation.

14 Change toner as needed. Locate access on the front of the fax machine and remove toner. Set aside on a piece of newspaper or throw it in the trash immediately, as old toner cartridges can leak. Place the new toner cartridge in the slot. Wipe up any spillage.

To function as an effective and productive member of your organisation, it is important that you know how to select equipment that is appropriate for the task, and then use it in accordance with designated instructions. The maintenance of that equipment is also critical to ensure that it is always operational.

At the end you should be able to:

* select and use equipment appropriate to the task according to organisational procedures and manufacturers’ instructions
* store and dispose of equipment and materials in accordance with organisational procedures
* deal with issues and problems arising from the operation of equipment in accordance with organisational protocol
* undertake training to use particular equipment as needed.

**Workplace equipment and machines**

Examples of typical office equipment include:

* telephone, fax, photocopiers and pagers
* security systems and intercoms
* television, video and CD players, cameras
* computers, printers, scanners and other peripherals.

There will be specific operational, maintenance and safety requirements for use of this equipment.  These are often posted near the equipment, or provided in the manufacturer’s instructions, or during workplace training. Your organisation will also have protocols and procedures regarding who can use the equipment and for what purposes.

**Safe use of equipment**

The health and safety of all persons is important when using equipment.  This includes the user, those nearby, and those who will use the equipment in future.

Safety considerations may include:

* selecting the right equipment for the task
* operating it correctly and in accordance with the manufacturer’s guidelines
* following health and safety instructions and using any protective equipment provided
* not misusing equipment, or using it for purposes other than that for which it is intended
* reporting any damage, or problems with the operation of equipment.

Safety instructions can normally be found in the operating manual, attached or marked on equipment itself, or posted nearby.

**Storage and disposal of equipment and materials**

Your organisation will have strict rules about the storage and disposal of equipment and materials.  These could include:

* shredding confidential documents
* recycling general waste paper
* recycling photocopy toner
* secure storage of assets such as video-conferencing equipment, recording equipment and office laptops
* home garaging of agency vehicles.

**Training**

If you do not know how to use a piece of equipment in your organisation, it’s a good idea to ask for training in how to operate it correctly. The training should include instructions for safe use and any related workplace procedures or protocols.  Examples of equipment requiring training could include:

* computers and computer systems
* common office equipment such as photocopiers and faxes
* equipment used to communicate between remote sites
* specific equipment, or equipment adapted for assisting clients with a disability.

If your organisation replaces an existing piece of equipment with a newer model or different brand, you should receive training in operating the new equipment. Policies, procedures and protocols for accessing training in your workplace could include:

* a requirement to develop a personal training plan
* procedures for requesting training
* approval of costs and time off work to attend training courses
* mandatory training for certain equipment.

If your organisation is very small or in a remote location, you may need to travel to a training venue, complete training online, or have a co-worker teach you.