

1 Module Details	
Module Name	Operational Concepts of Business Machines
Nominal duration	It is expected that students with the appropriate entry knowledge and skills will successfully complete this module in 36 to 40 hours.
Module code	NUE111
Discipline code	0703230
2 Module purpose	To provide students with an overview of the operation of office machines and the knowledge and skills to perform routine maintenance and handle consumables safely.
3 Prerequisites	Nil
4 Relationship to competency standards	This module provides some of the knowledge and skills underpinning competency in the following standards: National Electrotechnology Industry Standards, Units NES201, NES202, NES401, and the relevant specialisation. Metals & Engineering Industry Standards, Units 5.1A, 18.57A
5 Content	<ol style="list-style-type: none">1. Photocopiers<ul style="list-style-type: none">• Copy processes• Copier components• Maintenance procedures2. Facsimile machines<ul style="list-style-type: none">• Basic components• Transmission methods• Maintenance procedures3. Personal computers<ul style="list-style-type: none">• Typical software applications• Common peripheral devices4. Printers<ul style="list-style-type: none">• Printer types• Basic components• Maintenance procedures5. Chemicals handling<ul style="list-style-type: none">• Corrosive substances• Flammable materials safety6. Connectivity between business machines
6 Assessment strategy	
Assessment methods	Assessment should be progressive reflecting a holistic approach to ensure the module purpose is met. To assist in ensuring validity, reliability and fairness assessment instruments should include practical exercises, assignments and written tests consisting of a number of item types, such as multiple choice, short answer and problem solving.
Conditions of assessment	Normally learning and assessment will take place in a classroom/laboratory environment.

7 Learning Outcome Details

Learning Outcome 1

Describe typical office machines.

Assessment criteria

- 1.1 List typical machines used in the office environment.
- 1.2 Describe the basic purpose or function of common business machines.
- 1.3 Describe hazards associated with common business machine operation.

Learning Outcome 2

Describe the basic operation of photocopiers and perform basic adjustment and maintenance operations.

Assessment criteria

- 2.1 Outline the general operating processes involved in a photocopier
- 2.2 Identify major functional parts from a generic block diagram of a photocopier.
- 2.3 Describe the operation of the major functional blocks in a photocopier.
- 2.4 Adjust the paper path and copy quality of a typical basic photocopier.
- 2.5 Adjust a typical basic photocopier for correct operation
- 2.6 Clean and perform basic maintenance on a typical basic photocopier.
- 2.7 Replace consumables on a typical basic photocopier.

Learning Outcome 3

Describe the basic operation of facsimile machines and perform a basic installation.

Assessment criteria

- 3.1 Outline the general operating processes involved in a facsimile machine.
- 3.2 Interpret a generic block diagram of a facsimile machine.
- 3.3 Identify the major components of a facsimile machine.
- 3.4 Identify the different types of scanning mechanisms used.
- 3.5 List the different printing methods used by facsimile machines.
- 3.6 Install and test a typical facsimile machine using the FOLDS test.

Learning Outcome 4

Describe the basic functions of a PC in the office environment.

Assessment criteria

- 4.1 List typical applications of an office PC.
- 4.2 Describe the purpose of typical software applications on an office PC.
- 4.3 Identify common peripherals used by PC's in the office environment.

Learning Outcome 5

Describe the principles of operation of common printers and

	perform standard maintenance.
Assessment criteria	<p>5.1 Outline the general operating processes involved in a printer.</p> <p>5.2 Interpret a generic block diagram of a printer.</p> <p>5.3 Identify a range of printing methods employed in the industry, such as:</p> <ul style="list-style-type: none">• dot matrix• ink jet/bubble jet, mono and colour• laser, mono and colour• thermal transfer• colour sub-dye <p>5.4 Check for correct operation.</p> <p>5.5 Replace consumable items.</p> <p>5.6 Clean the machine both internally and externally.</p>
Learning Outcome 6	Describe electronic communication between business machines.
Assessment criteria	<p>6.1 State the need for electronic communication between machines.</p> <p>6.2 List the connectivity methods used by business machines.</p> <p>6.3 Describe the connectivity methods used by business machines.</p>
Learning Outcome 7	Install common consumable items used in the office environment.
Assessment criteria	<p>7.1 List and describe typical consumable materials used in the office environment.</p> <p>7.2 State correct storage and handling procedures for common consumables.</p> <p>7.3 Install common consumable items used in office machines.</p>
Learning Outcome 8	Identify and describe hazardous materials used in the office equipment and demonstrate correct handling procedures.
Assessment criteria	<p>8.1 Identify dangerous chemicals used in the office environment.</p> <p>8.2 Identify correct working procedures for dangerous chemicals.</p> <p>8.3 Outline the safe handling and transfer of chemicals and fluids between containers.</p> <p>8.4 Demonstrate the correct methods of transporting dangerous chemicals.</p> <p>8.5 Describe the correct methods of disposing of dangerous chemicals.</p> <p>8.6 Demonstrate the correct methods of cleaning spills of dangerous chemicals associated with the individual machines addressed in this module.</p> <p>8.7 Outline the first aid procedures required for common chemicals.</p>

8 Delivery of the module

Delivery strategy

Delivery strategies must be suitable for learning both theoretical and practical aspects described in the module purpose. It is considered that the most effective way to achieve this is by the integration of theory and practice where students learn by experimentation and through research and laboratory reports. It is recommended that learning and assessment be facilitated in a holistic manner, which may require a learning outcome sequence other than that indicated in the module.

Resource requirements

Resources should be sufficient for students to carry out practical exercises on an individual basis. This will require a range of business machines and consumables

Useful references include a range of manufacturers operational and maintenance manuals for business machines.

Occupational health and safety requirements

A safe and healthy environment will be provided for students and teachers as well as safety procedures followed with regard to teaching/learning activities.