

MAINTAIN LABORATORY EQUIPMENT

UNIT CODE: 1022 541 18A

TVET CDACC UNIT CODE: SLT/OS/SL/CR/02/5/MA

UNIT DESCRIPTION

This unit of competency covers the ability of a laboratory technologist to perform pre-use checks on laboratory equipment, perform calibration checks on laboratory equipment and perform equipment cleaning.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace functions	These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the range)</i>
1. Perform pre-use checks on laboratory equipment	1.1 Laboratory equipment check-ups are carried out in accordance with workplace procedure 1.1 safety check-ups are carried out as per manufacturer's manual 1.2 Faulty or unsafe components are identified in line with manufacturer's manual 1.3 Faulty or unsafe components are reported as per laboratory procedures
2. Perform calibration checks on laboratory equipment	2.1 Laboratory equipment is started according to operating procedure 2.2 Laboratory equipment is calibrated as per manufacturer's manual

	<p>2.3 <i>Calibration data</i> is recorded as per job requirement</p> <p>2.4 Out-of-calibration equipment is quarantined as per job specification</p>
3. Perform equipment cleaning	<p>3.1 Laboratory Equipment for cleaning are identified in accordance with manufacturer's manual</p> <p>3.2 laboratory equipment cleaning is carried out in accordance with manufacturer's manual</p> <p>3.3 Cleaned laboratory equipment is stored according to manufacturer manual</p>

RANGE

This section provides a work environment and conditions to which the performance criteria apply. It allows for a different work environment and situations that will affect performance.

Variable	Range
Safety check-ups include but not limited to	<ul style="list-style-type: none"> ● power inputs ● mechanical check
Calibration data include but not limited to	<ul style="list-style-type: none"> ● zero error ● electrical ● temperature ● humidity

REQUIRED KNOWLEDGE AND SKILLS

This section describes the knowledge and skills required for this unit of competency.

Required knowledge

The individual needs to demonstrate knowledge of:

- Physics equipment and apparatus
- Physics formulas
- Mathematics
- Physical quantities
- Thermodynamics
- Characteristics and behavior of waves
- Light properties and behavior
- Electromagnetic principles
- Electrical components
- Radioactivity
- Connection of circuits
- Electrical quantities

Required skills

The individual needs to demonstrate the following skills:

Examples:

- Active listening
- Reflecting
- Technical
- Observation
- Problem solving
- Critical thinking
- Reporting
- Interpretation
- Maintenance
- Communication

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills range.

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Carried out safety check-ups as per manufacturer's manual 1.2 Recorded calibration data is as per job requirement 1.3 Carried out laboratory equipment cleaning in accordance with manufacturer's manual 1.4 stored cleaned laboratory equipment according to manufacturer's manual
2. Resource implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1. Appropriately simulated environment where assessment can take place. 2.2. Access to relevant work environment. 2.3. Resources relevant to the proposed activities or tasks.
3. Methods of assessment	<p>Competency may be assessed through:</p> <ul style="list-style-type: none"> 3.1 Practical Assessment 3.2 Project-Based Assessment 3.3 Portfolio of Evidence 3.4 Third Party Reports 3.5 Written Assessment
4. Context of assessment	<p>Competency may be assessed in a workplace or simulated workplace</p>

5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.
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