



**education**

Department:  
Education  
REPUBLIC OF SOUTH AFRICA

# **NATIONAL CERTIFICATES (VOCATIONAL)**

## **ASSESSMENT GUIDELINES**

### **WORKSHOP PRACTICE**

#### **NQF LEVEL 2**

September 2007



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## SECTION A: PURPOSE OF THE SUBJECT ASSESSMENT GUIDELINES

This document provides the lecturer with guidelines to develop and implement a coherent, integrated assessment system for Workshop Practice and Electrical Workmanship in the National Certificates (Vocational). It must be read with the *National Policy Regarding Further Education and Training Programmes: Approval of the Documents, Policy for the National Certificates (Vocational) Qualifications at Levels 2 to 4 on the National Qualifications Framework (NQF)*. This assessment guideline will be used for National Qualifications Framework Levels 2-4.

This document explains the requirements for the internal and external subject assessment. The lecturer must use this document with the *Subject Guidelines: Workshop Practice and Electrical Workmanship* to prepare for and deliver *Workshop Practice and Electrical Workmanship*. Lecturers should use a variety of resources and apply a range of assessment skills in the setting, marking and recording of assessment tasks.

## SECTION B: ASSESSMENT IN THE NATIONAL CERTIFICATES (VOCATIONAL)

### 1 ASSESSMENT IN THE NATIONAL CERTIFICATES (VOCATIONAL)

Assessment in the National Certificates (Vocational) is underpinned by the objectives of the National Qualifications Framework (NQF). These objectives are to:

- Create an integrated national framework for learning achievements.
- Facilitate access to and progression within education, training and career paths.
- Enhance the quality of education and training.
- Redress unfair discrimination and past imbalances and thereby accelerate employment opportunities.
- Contribute to the holistic development of the student by addressing:
  - social adjustment and responsibility;
  - moral accountability and ethical work orientation;
  - economic participation; and
  - nation-building.

The principles that drive these objectives are:

- **Integration**

To adopt a unified approach to education and training that will strengthen the human resources development capacity of the nation.

- **Relevance**

To be dynamic and responsive to national development needs.

- **Credibility**

To demonstrate national and international value and recognition of qualification and acquired competencies and skills.

- **Coherence**

To work within a consistent framework of principles and certification.

- **Flexibility**

To allow for creativity and resourcefulness when achieving Learning Outcomes, to cater for different learning styles and use a range of assessment methods, instruments and techniques.

- **Participation**

To enable stakeholders to participate in setting standards and co-ordinating the achievement of the qualification.

- **Access**

To address barriers to learning at each level to facilitate students' progress.

- **Progression**

To ensure that the qualification framework permits individuals to move through the levels of the national qualification via different, appropriate combinations of the components of the delivery system.

- **Portability**

To enable students to transfer credits of qualifications from one learning institution and/or employer to another institution or employer.

- **Articulation**

To allow for vertical and horizontal mobility in the education system when accredited pre-requisites have been successfully completed.

- **Recognition of Prior Learning**

To grant credits for a unit of learning following an assessment or if a student possesses the capabilities specified in the outcomes statement.

- **Validity of assessments**

To ensure assessment covers a broad range of knowledge, skills, values and attitudes (SKVAs) needed to demonstrate applied competency. This is achieved through:

- clearly stating the outcome to be assessed;
- selecting the appropriate or suitable evidence;
- matching the evidence with a compatible or appropriate method of assessment; and
- selecting and constructing an instrument(s) of assessment.

- **Reliability**

To assure assessment practices are consistent so that the same result or judgment is arrived at if the assessment is replicated in the same context. This demands consistency in the interpretation of evidence; therefore, careful monitoring of assessment is vital.

- **Fairness and transparency**

To verify that no assessment process or method(s) hinders or unfairly advantages any student. The following could constitute unfairness in assessment:

- Inequality of opportunities, resources or teaching and learning approaches
- Bias based on ethnicity, race, gender, age, disability or social class
- Lack of clarity regarding Learning Outcome being assessed
- Comparison of students' work with other students, based on learning styles and language

- **Practicability and cost-effectiveness**

To integrate assessment practices within an outcomes-based education and training system and strive for cost and time-effective assessment.

## **2 ASSESSMENT FRAMEWORK FOR VOCATIONAL QUALIFICATIONS**

The assessment structure for the National Certificates (Vocational) qualification is as follows:

### **2.1 Internal continuous assessment (ICASS)**

Knowledge, skills values, and attitudes (SKVAs) are assessed throughout the year using assessment instruments such as projects, tests, assignments, investigations, role-play and case studies. The internal continuous assessment (ICASS) practical component is undertaken in a real workplace, a workshop or a "Structured Environment". This component is moderated internally and externally quality assured by Umalusi. All internal continuous assessment (ICASS) evidence is kept in a Portfolio of Evidence (PoE) and must be readily available for monitoring, moderation and verification purposes.

### **2.2 External summative assessment (ESASS)**

The external summative assessment is either a single or a set of written papers set to the requirements of the Subject Learning Outcomes. The Department of Education administers the theoretical component according to relevant assessment policies.

A compulsory component of external summative assessment (ESASS) is the **integrated summative assessment task (ISAT)**. This assessment task draws on the students' cumulative learning throughout the year. The task requires **integrated application of competence** and is executed under strict assessment conditions. The task should take place in a simulated or "Structured Environment". The integrated summative assessment task (ISAT) is the most significant test of students' ability to apply their acquired knowledge.

The integrated assessment approach allows students to be assessed in more than one subject with the same integrated summative assessment task (ISAT).

External summative assessments will be conducted annually between October and December, with provision made for supplementary sittings.

### 3 MODERATION OF ASSESSMENT

#### 3.1 Internal moderation

Assessment must be moderated according to the internal moderation policy of the Further Education and Training (FET) college. Internal college moderation is a continuous process. The moderator's involvement starts with the planning of assessment methods and instruments and follows with continuous collaboration with and support to the assessors. Internal moderation creates common understanding of Assessment Standards and maintains these across vocational programmes.

#### 3.2 External moderation

External moderation is conducted by the Department of Education, Umalusi and, where relevant, an Education and Training Quality Assurance (ETQA) body according to South African Qualifications Authority (SAQA) and Umalusi standards and requirements.

The external moderator:

- monitors and evaluates the standard of all summative assessments;
- maintains standards by exercising appropriate influence and control over assessors;
- ensures proper procedures are followed;
- ensures summative integrated assessments are correctly administered;
- observes a minimum sample of ten (10) to twenty-five (25) percent of summative assessments;
- gives written feedback to the relevant quality assessor; and
- moderates in case of a dispute between an assessor and a student.

Policy on inclusive education requires that assessment procedures for students who experience barriers to learning be customised and supported to enable these students to achieve their maximum potential.

### 4 PERIOD OF VALIDITY OF INTERNAL CONTINUOUS ASSESSMENT (ICASS)

The period of validity of the internal continuous assessment mark is determined by the *National Policy on the Conduct, Administration and Management of the Assessment of the National Certificates (Vocational)*.

The internal continuous assessment (ICASS) must be re-submitted with each examination enrolment for which it constitutes a component.

### 5 ASSESSOR REQUIREMENTS

Assessors must be subject specialists and should ideally be declared competent against the standards set by the ETDP SETA. If the lecturer conducting the assessments has not been declared a competent assessor, an assessor who has been declared competent may be appointed to oversee the assessment process to ensure the quality and integrity of assessments.

### 6 TYPES OF ASSESSMENT

Assessment benefits the student and the lecturer. It informs students about their progress and helps lecturers make informed decisions at different stages of the learning process. Depending on the intended purpose, different types of assessment can be used.

## 6.1 Baseline assessment

At the beginning of a level or learning experience, baseline assessment establishes the knowledge, skills, values and attitudes (SKVAs) that students bring to the classroom. This knowledge assists lecturers to plan learning programmes and learning activities.

## 6.2 Diagnostic assessment

This assessment diagnoses the nature and causes of learning barriers experienced by specific students. It is followed by guidance, appropriate support and intervention strategies. This type of assessment is useful to make referrals for students requiring specialist help.

## 6.3 Formative assessment

This assessment monitors and supports teaching and learning. It determines student strengths and weaknesses and provides feedback on progress. It determines if a student is ready for summative assessment.

## 6.4 Summative assessment

This type of assessment gives an overall picture of student progress at a given time. It determines whether the student is sufficiently competent to progress to the next level.

## 7 PLANNING ASSESSMENT

An assessment plan should cover three main processes:

### 7.1 Collecting evidence

The assessment plan indicates which Subject Outcomes and Assessment Standards will be assessed, what assessment method or activity will be used and when this assessment will be conducted.

### 7.2 Recording

Recording refers to the assessment instruments or tools with which the assessment will be captured or recorded. Therefore, appropriate assessment instruments must be developed or adapted.

### 7.3 Reporting

All the evidence is put together in a report to deliver a decision for the subject.

## 8 METHODS OF ASSESSMENT

Methods of assessment refer to who carries out the assessment and includes lecturer assessment, self-assessment, peer assessment and group assessment.

<b>LECTURER ASSESSMENT</b>	The lecturer assesses students' performance against given criteria in different contexts, such as individual work, group work, etc.
<b>SELF-ASSESSMENT</b>	Students assess their own performance against given criteria in different contexts, such as individual work, group work, etc.
<b>PEER ASSESSMENT</b>	Students assess another student or group of students' performance against given criteria in different contexts, such as individual work, group work, etc.
<b>GROUP ASSESSMENT</b>	Students assess the individual performance of other students within a group or the overall performance of a group of students against given criteria.

## 9 INSTRUMENTS AND TOOLS FOR COLLECTING EVIDENCE

All evidence collected for assessment purposes is kept or recorded in the student's Portfolio of Evidence (PoE).

The following table summarises a variety of methods and instruments for collecting evidence. A method and instrument is chosen to give students ample opportunity to demonstrate the Subject Outcome has been attained. This will only be possible if the chosen methods and instruments are appropriate for the target group and the Specific Outcome being assessed.

	METHODS FOR COLLECTING EVIDENCE		
	Observation-based (Less structured)	Task-based (Structured)	Test-based (More structured)
<b>Assessment instruments</b>	<ul style="list-style-type: none"> <li>• Observation</li> <li>• Class questions</li> <li>• Lecturer, student, parent discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Assignments or tasks</li> <li>• Projects</li> <li>• Investigations or research</li> <li>• Case studies</li> <li>• Practical exercises</li> <li>• Demonstrations</li> <li>• Role-play</li> <li>• Interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Examinations</li> <li>• Class tests</li> <li>• Practical examinations</li> <li>• Oral tests</li> <li>• Open-book tests</li> </ul>
<b>Assessment tools</b>	<ul style="list-style-type: none"> <li>• Observation sheets</li> <li>• Lecturer's notes</li> <li>• Comments</li> </ul>	<ul style="list-style-type: none"> <li>• Checklists</li> <li>• Rating scales</li> <li>• Rubrics</li> </ul>	<ul style="list-style-type: none"> <li>• Marks (e.g. %)</li> <li>• Rating scales (1-7)</li> </ul>
<b>Evidence</b>	<ul style="list-style-type: none"> <li>• Focus on individual students</li> <li>• Subjective evidence based on lecturer observations and impressions</li> </ul>	<p><b>Open middle:</b> Students produce the same evidence but in different ways.</p> <p><b>Open end:</b> Students use same process to achieve different results.</p>	Students answer the same questions in the same way, within the same time.

## 10 TOOLS FOR ASSESSING STUDENT PERFORMANCE

**Rating scales** are marking systems where a symbol (such as 1 to 7) or a mark (such as 5/10 or 50%) is defined in detail. The detail is as important as the coded score. Traditional marking, assessment and evaluation mostly used rating scales without details such as what was right or wrong, weak or strong, etc.

**Task lists** and **checklists** show the student what needs to be done. They consist of short statements describing the expected performance in a particular task. The statements on the checklist can be ticked off when the student has adequately achieved the criterion. Checklists and task lists are useful in peer or group assessment activities.

**Rubrics** are a hierarchy (graded levels) of criteria with benchmarks that describe the minimum level of acceptable performance or achievement for each criterion. It is a different way of assessment and cannot be compared to tests. Each criterion described in the rubric must be assessed separately. Mainly, two types of rubrics, namely holistic and analytical, are used.

## 11 SELECTING AND/OR DESIGNING RECORDING AND REPORTING SYSTEMS

The selection or design of recording and reporting systems depends on the purpose of recording and reporting student achievement. **Why** particular information is recorded and **how** it is recorded determine which instrument will be used.

Computer-based systems, for example spreadsheets, are cost and time effective. The recording system should be user-friendly and information should be easily accessed and retrieved.

## 12 COMPETENCE DESCRIPTIONS

All assessment should award marks to evaluate specific assessment tasks. However, marks should be awarded against rubrics and not simply be a total of ticks for right answers. Rubrics should explain the competence level descriptors for the skills, knowledge, values and attitudes (SKVAs) a student must demonstrate to achieve each level of the rating scale.

When lecturers or assessors prepare an assessment task or question, they must ensure that the task or question addresses an aspect of a Subject Outcome. The relevant Assessment Standard must be used to create the rubric to assess the task or question. The descriptions must clearly indicate the minimum level of attainment for each category on the rating scale.



### 13 STRATEGIES FOR COLLECTING EVIDENCE

A number of different assessment instruments may be used to collect and record evidence. Examples of instruments that can be (adapted and) used in the classroom include:

#### 13.1 Record sheets

The lecturer observes students working in a group. These observations are recorded in a summary table at the end of each project. The lecturer can design a record sheet to observe students' interactive and problem solving skills, attitudes towards group work and involvement in a group activity.

#### 13.2 Checklists

Checklists should have clear categories to ensure that the objectives are effectively met. The categories should describe how the activities are evaluated and against what criteria they are evaluated. Space for comments is essential.

## SECTION C: ASSESSMENT IN WORKSHOP PRACTICE AND ELECTRICAL WORKMANSHIP

### 1 SCHEDULE OF ASSESSMENT

At NQF levels 2, 3 and 4, lecturers will conduct assessments as well as develop a schedule of formal assessments that will be undertaken in the year. All three levels also have an external examination that accounts for 50 percent of the total mark. The marks allocated to assessment tasks completed during the year, kept or recorded in a Portfolio of Evidence (PoE) account for the other 50 percent.

The Portfolio of Evidence (PoE) and the external assessment include practical and written components. The practical assessment in Workshop Practice and Electrical Workmanship must, where necessary, be subjected to external moderation by Umalusi or an appropriate Education and Training Quality Assurance (ETQA) body, appointed by the Umalusi Council in terms of Section 28(2) of the *General and Further Education and Training Quality Assurance Act, 2001 (Act No. 58 of 2001)*.

### 2 RECORDING AND REPORTING

Workshop Practice and Electrical Workmanship, as is the case for all the other Vocational subjects, is assessed according to five levels of competence. The level descriptions are explained in the following table.

#### **Scale of Achievement for the Vocational component**

RATING CODE	RATING	MARKS %
5	Outstanding	80-100
4	Highly competent	70-79
3	Competent	50-69
2	Not yet competent	40-49
1	Not achieved	0-39

The programme of assessment should be recorded in the Lecturer's Portfolio of Assessment for each subject. The following should at least be included in the Lecturer's Assessment Portfolio:

- A contents page
- The formal schedule of assessment
- The requirements for each assessment task
- The tools used for each assessment task
- Recording instrument(s) for each assessment task
- A mark sheet and report for each assessment task

The college must standardise these documents.

The student's Portfolio of Evidence (PoE) must at least include:

- A contents page
- The assessment tasks according to the assessment schedule
- The assessment tools or instruments for the task

- A record of the marks (and comments) achieved for each task

Where tasks cannot be contained as evidence in the Portfolio of Evidence (PoE), its exact location must be recorded and it must be readily available for moderation purposes.

**ASSESSMENT OF WORKSHOP PRACTICE**  
**LEVEL 2**

### 3 INTERNAL ASSESSMENT OF SUBJECT OUTCOMES IN WORKSHOP PRACTICE – LEVEL 2

#### Topic 1: Safety and Regulations

<b>SUBJECT OUTCOME</b>	
<b>Explain and practice safety.</b>	
<i>Range: Includes explaining why safety is of paramount importance, identify hazardous conditions and knowing what safety precautions to take when working in elevated positions, working with a grindstone, arc welding, drilling, using an angle grinder and doing maintenance on electrical equipment.</i>	
<b>ASSESSMENT STANDARDS</b>	<b>LEARNING OUTCOMES</b>
<ul style="list-style-type: none"> <li>• Safety, health and environmental requirements applicable to a workplace are stated.</li> <li>• Common hazardous conditions at worksites are stated.</li> <li>• Safety precautions to be taken for the identified hazardous working conditions are listed.</li> <li>• Site-specific requirements are known and listed.</li> </ul>	<ul style="list-style-type: none"> <li>• State safety, health and environmental requirements applicable to a workplace.</li> <li>• State common hazardous conditions at worksites.</li> <li>• List safety precautions to be taken for the identified hazardous working conditions.</li> <li>• Know about site-specific requirements and list them.</li> </ul>
<b>ASSESSMENT TASKS OR ACTIVITIES</b>	
<ul style="list-style-type: none"> <li>• Written test to determine if student understands the importance of safety.</li> <li>• Student is taken to a workshop or worksite and shown hazardous conditions.</li> <li>• Practically demonstrate the wearing of a safety harness, hard-hat, safety shoes, etc. when working in elevated positions.</li> <li>• Practically demonstrate the correct way to hold a work piece when grinding, wearing safety glasses and clothes, the safety guard, etc.</li> <li>• Know the danger of electrocution. Demonstrate correct use of safety clothes and protection equipment, etc.</li> <li>• Practically demonstrate the correct way to use a drilling machine, such as securing the work piece correctly, taking precautions against metal cuttings, loose clothing, etc.</li> <li>• Practically demonstrate the correct way to use an angle grinder and take all possible precautions to prevent accidents.</li> <li>• Written test to determine if student understands the safety requirements when doing maintenance on electrical equipment.</li> </ul>	

<b>SUBJECT OUTCOME</b>	
<b>Know about safety regulations.</b>	
<i>Range: Includes knowing about the Occupational Health &amp; Safety Act of 1993, the Mine Health and Safety Act 29 of 1996, NOSA, NOSA grading in factories and workshops and the SHE (Safety Health and Environment) program at the worksite.</i>	
<b>ASSESSMENT STANDARDS</b>	<b>LEARNING OUTCOMES</b>
<ul style="list-style-type: none"> <li>• Five safety regulations applicable to factories and workshops are stated.</li> <li>• Five safety regulations applicable in mines are stated.</li> <li>• NOSA grading for factories and workshops are explained.</li> <li>• Components in a typical Safety, Health and Environment programme are listed.</li> </ul>	<ul style="list-style-type: none"> <li>• State five safety regulations applicable to factories and workshops.</li> <li>• State five safety regulations applicable in mines.</li> <li>• Explain NOSA grading for factories and workshops.</li> <li>• List components in a typical Safety, Health and Environment programme.</li> </ul>
<b>ASSESSMENT TASKS OR ACTIVITIES</b>	
<ul style="list-style-type: none"> <li>• Student must gather the information from the Internet (<a href="http://www.info.gov.za/gazette/acts">www.info.gov.za/gazette/acts</a>).</li> <li>• Ask a guest speaker to explain legal implications.</li> <li>• Write a NOSA Safety Test</li> <li>• Student must gather information about achieving five star NOSA rating (<a href="http://www.nosa.co.za">www.nosa.co.za</a>).</li> <li>• Do a case study of the SHE programme at the Learning Institute and note any gaps in the programme.</li> </ul>	

## Topic 2: First Aid

<b>SUBJECT OUTCOME</b>	
<b>Identify the symptoms and know the treatment to apply basic first aid to an accident victim.</b>	
<i>Range: Includes victims with electric shock, shock, burns, bleeding, fractures, applying artificial respiration and cardiac resuscitation.</i>	
<b>ASSESSMENT STANDARDS</b>	<b>LEARNING OUTCOMES</b>
<ul style="list-style-type: none"> <li>The case study is analysed and the steps to be followed are stated.</li> <li>Basic first aid procedures are performed in a simulated case study.</li> </ul>	<ul style="list-style-type: none"> <li>Analyse the case study and state the steps to be followed.</li> <li>Perform basic first aid procedures in a simulated case study.</li> </ul>
<b>ASSESSMENT TASKS OR ACTIVITIES</b>	
<ul style="list-style-type: none"> <li>Written test to determine if student can identify the type of accident from the symptoms and state the correct treatment for the specific case.</li> <li>Practically demonstrate the correct way to treat a victim of electric shock.</li> <li>Practically demonstrate the correct way to treat a victim for shock.</li> <li>Practically demonstrate the correct way to treat a victim for burns.</li> <li>Practically demonstrate the correct way to treat a victim for bleeding.</li> <li>Practically demonstrate the correct way to treat a victim for fractures.</li> <li>Practically demonstrate the correct way to apply artificial respiration.</li> <li>Practically demonstrate the correct way to apply cardiac resuscitation.</li> </ul>	

<b>SUBJECT OUTCOME</b>	
<b>Know the procedures to report an accident.</b>	
<b>ASSESSMENT STANDARDS</b>	<b>LEARNING OUTCOMES</b>
<ul style="list-style-type: none"> <li>Basic procedures to report an accident are listed.</li> <li>The basic procedures in a simulated case study are followed.</li> <li>An accident report is written out.</li> </ul>	<ul style="list-style-type: none"> <li>List basic procedures to report an accident.</li> <li>Follow the basic procedures in a simulated case study.</li> <li>Write out an accident report.</li> </ul>
<b>ASSESSMENT TASKS OR ACTIVITIES</b>	
<ul style="list-style-type: none"> <li>Written test to determine if student can report an accident and write out an accident report correctly.</li> </ul>	

## Topic 3: Tools and Equipment Use

<b>SUBJECT OUTCOME</b>	
<b>Use tools and equipment according to accepted standards.</b>	
<i>Range: Includes identifying, inspecting, selecting, using, maintaining and caring for hand tools, power tools and power tool attachments.</i>	
<b>ASSESSMENT STANDARDS</b>	<b>LEARNING OUTCOMES</b>
<ul style="list-style-type: none"> <li>Each tool correctly is named.</li> <li>Tools are inspected for serviceability and a report is compiled.</li> <li>The correct tools for the job are identified and selected.</li> <li>Unsafe or faulty tools are identified and reported and the nature of the flaw is stated.</li> <li>Tools (hand and workshop) and equipment are correctly used.</li> <li>Appropriate power tools and power tool attachments for particular applications are selected.</li> <li>Appropriate power tools and power tool attachments for particular applications are used.</li> <li>Unsafe or faulty power tools and power tool attachments are identified and corrective action is taken.</li> <li>Tools, power tools and power tool attachments are</li> </ul>	<ul style="list-style-type: none"> <li>Name each tool correctly.</li> <li>Inspect tools for serviceability and compile a report.</li> <li>Identify and select the correct tools for the job.</li> <li>Identify and report unsafe or faulty tools and state the nature of the flaw.</li> <li>Correctly use tools (hand and workshop) and equipment.</li> <li>Select appropriate power tools and power tool attachments for particular applications.</li> <li>Use appropriate power tools and power tool attachments for particular applications.</li> <li>Identify unsafe or faulty power tools and power tool attachments and take corrective action.</li> <li>Clean, service and store tools, power tools and power tool attachments correctly.</li> </ul>

cleaned, serviced and stored correctly.	
ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> <li>• Student must identify various saws, files, clamps, screwdrivers, spanners, pliers, hammers, chisels, punches, scribes, rulers and measuring tapes, squares and jigs, electrically insulated tools, wire strippers and cable knife, side cutters, ferrule crimping tools, draw tapes, bending spring and ladders.</li> <li>• Student must inspect the above-mentioned hand tools for serviceability and generate a report.</li> <li>• Student must use hand tools, workshop equipment and power tools correctly. Fabricate a project applicable to the trade.</li> <li>• Correctly use tools (hand and workshop) and equipment (marking of).</li> <li>• Correctly apply soldering, arc welding and gas welding, cutting, heating.</li> <li>• Conform to worksite procedures.</li> <li>• Student must maintain and care for the above-mentioned hand tools.</li> <li>• Sharpen chisels, drills, punches and dress screwdrivers.</li> <li>• Student must identify various drilling machines, angle grinding machines, orbital sanders and jig-saws.</li> <li>• Use the correct drill bits, hole saws, filing, grinding, and cutting attachments.</li> <li>• Student must identify unsafe or faulty tools and take corrective action for the above-mentioned power tools and power tool attachments.</li> <li>• Student must maintain and care for the above-mentioned power tools and power tool attachments.</li> </ul>	

#### Topic 4: Worksite Procedures, lifting techniques and trainee regulations

SUBJECT OUTCOME	
<p><b>Have basic knowledge on good worksite procedures.</b></p> <p><i>Range: Includes basic knowledge of safety signs, colour-coding of walkways, work-areas, no-go areas, and fire-fighting equipment.</i></p> <p><i>Range: Includes drawing up a written plan and organize a schedule for the effective and efficient completion of a task.</i></p>	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>• Typical worksite procedures are listed.</li> <li>• Signs such as fire-fighting equipment, restricted areas, compulsory wearing of safety equipment, no smoking, high voltage, slippery surfaces, etc. are identified.</li> <li>• Coding as applied at sites of work, in factories and in workshops is identified.</li> <li>• Fire-fighting equipment and their application are listed.</li> <li>• Tasks that must be done before work on the task is started are listed; how each task can be achieved and the reason for each task is explained.</li> </ul>	<ul style="list-style-type: none"> <li>• List typical worksite procedures.</li> <li>• Identify signs such as fire-fighting equipment, restricted areas, compulsory wearing of safety equipment, no smoking, high voltage, slippery surfaces, etc.</li> <li>• Identify coding as applied at sites of work, in factories and in workshops.</li> <li>• List fire-fighting equipment and their application.</li> <li>• List tasks that must be done before work on the task is started; explain how each task can be achieved and the reason for each task.</li> </ul>
ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> <li>• Written test to determine if student has a basic knowledge of good worksite procedures</li> <li>• Written test to determine if student has a basic knowledge of safety signs</li> <li>• Written test to determine if student has a basic knowledge of colour-coding</li> <li>• Distinguish between electrical fires and chemical fires and correctly select the extinguishing equipment.</li> <li>• The student is given a task in the workshop and simulates ordering of equipment, permission to work on equipment, isolation of circuitry, notices and lock-out switches, steps to be taken during the work, etc.</li> </ul>	

SUBJECT OUTCOME	
<p><b>Understand and use basic lifting techniques.</b></p>	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>• Overhead crane hand signals are recalled.</li> <li>• Overhead crane hand signals are demonstrated.</li> <li>• The following equipment is used: chain block (2 ton max), shackles (2 ton max), chain slings (2,5 ton max) and wire rope slings (20 mm diameter).</li> </ul>	<ul style="list-style-type: none"> <li>• Recall overhead crane hand signals.</li> <li>• Demonstrate overhead crane hand signals.</li> <li>• Use the following equipment: chain block (2 ton max), shackles (2 ton max), chain slings (2,5 ton max) and wire rope slings (20 mm diameter).</li> </ul>

ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> <li>Written test to determine if student has a basic knowledge of lifting techniques</li> <li>Practical to determine if student has a basic knowledge of lifting techniques</li> </ul>	
SUBJECT OUTCOME	
<p><b>Show a basic knowledge of the mentioned acts, procedures and rules used to protect employers and trainees.</b></p>	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>Applicable sections of the Manpower Training Act (Act 56 of 1981), with special reference to discipline and legal responsibilities are recalled.</li> <li>Terms and conditions of apprenticeship as gazetted (26 July 1991) are recalled.</li> <li>Applicable grievance procedures are recalled.</li> <li>Applicable disciplinary procedures are recalled.</li> <li>Company rules and procedures are recalled.</li> <li>Quality assurance procedures are recalled.</li> </ul>	<ul style="list-style-type: none"> <li>Recall applicable sections of the Manpower Training Act (Act 56 of 1981), with special reference to discipline and legal responsibilities.</li> <li>Recall terms and conditions of apprenticeship as gazetted (26 July 1991).</li> <li>Recall applicable grievance procedures.</li> <li>Recall applicable disciplinary procedures.</li> <li>Recall company rules and procedures.</li> <li>Recall quality assurance procedures.</li> </ul>
ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> <li>Written test to determine if student has a basic knowledge of the mentioned acts, procedures and rules</li> </ul>	

### Topic 5: Soldering and Gas Welding

SUBJECT OUTCOME	
<p><b>Apply soldering, techniques.</b></p> <p><i>Range: Includes soldering electronic circuitry and joining electric cables</i></p> <p><i>Range: Includes but is not limited to end-on-end joints, T-joints and cable-onto-terminal joints</i></p>	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>Soldering equipment that best suits the application is selected.</li> <li>Work activity is prepared for by listing the components, tools and resources needed.</li> <li>Work area and materials are prepared for a practical demonstration.</li> <li>Solder in accordance with standard practice.</li> <li>Joint is inspected and work area is cleaned.</li> </ul>	<ul style="list-style-type: none"> <li>Select soldering equipment that best suits the application.</li> <li>Prepare for work activity by listing the components, tools and resources needed.</li> <li>Prepare work area and materials for a practical demonstration.</li> <li>Solder in accordance with standard practice.</li> <li>Inspect joint and clean work area.</li> </ul>
ASSESSMENT TASKS OR ACTIVITIES	
<ul style="list-style-type: none"> <li>Student is given a typical scenario and must decide on the method that best suits the application.</li> <li>Prepare for work activity by listing the components, tools and resources needed.</li> <li>Prepare work area and materials for a practical demonstration.</li> <li>Inspect joint and dispose of scrap material.</li> <li>Restore work area to a safe and serviceable condition after activity.</li> </ul>	

SUBJECT OUTCOME	
<p><b>Apply welding and gas cutting techniques.</b></p> <p><i>Range: Includes identification of equipment, correct operating procedures and cutting, welding and brazing limited to one parallel run</i></p> <p><i>Students must know relevant safety aspects for welding in an electrical environment.</i></p>	
ASSESSMENT STANDARDS	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>An activity that best suits the application is selected.</li> <li>Work activity is prepared for by listing the components, tools and resources needed.</li> <li>Work area and materials are prepared for a practical demonstration.</li> <li>Material is welded, cut or brazed in accordance with standard practice.</li> <li>Joint is inspected and scrap material is disposed of.</li> </ul>	<ul style="list-style-type: none"> <li>Select an activity that best suits the application.</li> <li>Prepare for work activity by listing the components, tools and resources needed.</li> <li>Prepare work area and materials for a practical demonstration.</li> <li>Weld, cut or braze material in accordance with standard practice.</li> <li>Inspect joint and dispose of scrap material.</li> </ul>

<ul style="list-style-type: none"> <li>The work area is restored to a safe and serviceable condition after the activity.</li> </ul>	<ul style="list-style-type: none"> <li>Restore the work area to a safe and serviceable condition after the activity.</li> </ul>
<b>ASSESSMENT TASKS OR ACTIVITIES</b>	
<ul style="list-style-type: none"> <li>Prepare for work activity by listing the components, tools and resources needed.</li> <li>Prepare work area and materials for a practical demonstration.</li> <li>Inspect joint and dispose of scrap material.</li> <li>Restore work area to a safe and serviceable condition after activity</li> </ul>	

#### 4 SPECIFICATION FOR EXTERNAL ASSESSMENT IN WORKSHOP PRACTICE – LEVEL 2

##### 4.1 Integrated summative assessment task (ISAT)

A compulsory component of the external assessment (ESASS) is the **integrated summative assessment task (ISAT)**. The integrated summative assessment task (ISAT) draws on the students' cumulative learning achieved throughout the year. The task requires **integrated application of competence** and is executed and recorded in compliance with assessment conditions.

Two approaches to the integrated summative assessment task (ISAT) may be as follows:

The students are assigned a task at the beginning of the year which they will have to complete in phases throughout the year to obtain an assessment mark. A final assessment is made at the end of the year when the task is completed.

**OR**

Students achieve the competencies throughout the year but the competencies are assessed cumulatively in a single assessment or examination session at the end of the year.

The integrated summative assessment task (ISAT) is set by an externally appointed examiner and is conveyed to colleges in the first quarter of the year.

The integrated assessment approach enables students to be assessed in more than one subject with the same integrated summative assessment task (ISAT).

##### 4.2 National Examination

A National Examination is conducted annually in October or November by means of a paper(s) set and moderated externally. The following distribution of cognitive application should be followed:

<b>LEVEL 2</b>	<b>KNOWLEDGE AND COMPREHENSION</b>	<b>APPLICATION</b>	<b>ANALYSIS, SYNTHESIS AND EVALUATION</b>
	50 - 60%	30 - 40%	0 - 10%