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**Course Title:** Select, Use, and Care for Engineering Power Tools

**SAQA ID:** 12219

**NQF Level:** 2

**Credits:** 6

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### **Course Description:**

This course is designed to provide learners with the skills and knowledge necessary to select, use, and maintain engineering power tools safely and effectively. It covers a range of power tools commonly used in engineering, emphasizing correct selection based on task requirements, safe operation, and proper maintenance practices. Learners will gain an understanding of safety regulations, tool functionalities, and best practices for tool care, ensuring a safe and productive work environment.

### **Course Objectives:**

By the end of this course, learners will be able to:

- Identify various types of engineering power tools and their specific applications.
- Select the appropriate power tool for specific tasks based on material and job requirements.
- Demonstrate safe operating procedures for power tools.
- Perform routine maintenance and care for power tools to ensure optimal performance.
- Understand safety regulations and practices related to the use of power tools in the workplace.

### **Benefits of Completing this Course:**

- Acquire essential skills for the safe selection and use of engineering power tools.
- Enhance workplace safety by understanding proper operating and maintenance practices.
- Improve efficiency and effectiveness in performing engineering tasks.
- Gain confidence in using various power tools safely and effectively.
- Receive a recognized qualification that supports career development in engineering and technical fields.

### **Who Should Attend:**

- Engineering and technical students.
- Apprentices and trainees in mechanical or electrical fields.
- Tradespeople who require proficiency in using power tools.
- Supervisors and managers responsible for power tool safety and maintenance in engineering environments.



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### **Assessment:**

Assessment will be based on the learner's ability to:

- Demonstrate knowledge of different types of engineering power tools and their applications.
- Select and use the correct power tools for specific engineering tasks.
- Conduct practical demonstrations of safe tool handling and usage.
- Perform routine maintenance and care for power tools.
- Participate in discussions and activities related to tool safety and maintenance.

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### **Specific Outcomes and Assessment Criteria:**

By successfully completing this SAQA Unit Standard, learners will demonstrate competency in the following:

#### **1. Identify Engineering Power Tools:**

- Recognize various types of power tools used in engineering, including drills, saws, grinders, and sanders.
- Understand the purpose and function of each type of power tool.
- Assessment Criteria: Written test on identifying and describing different engineering power tools.

#### **2. Select Appropriate Power Tools:**

- Assess task requirements to determine the most suitable power tools for specific jobs.
- Explain the factors influencing tool selection, including material type, job complexity, and ergonomic considerations.
- Assessment Criteria: Practical exercise requiring learners to select appropriate power tools for given scenarios.

#### **3. Demonstrate Safe Tool Handling and Usage:**

- Follow safe operating procedures when using power tools.
- Demonstrate correct techniques for handling, operating, and storing power tools to minimize the risk of injury.
- Assessment Criteria: Practical demonstration of safe tool usage in simulated engineering tasks.

#### **4. Perform Tool Maintenance and Care:**

- Identify and perform routine maintenance tasks for various power tools, including cleaning, lubrication, and inspection.
- Recognize signs of wear or damage and understand when to repair or replace tools.
- Assessment Criteria: Practical assessment on conducting maintenance and care for a selection of power tools.



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#### 5. Understand Safety Regulations and Best Practices:

- Explain relevant safety regulations and best practices regarding power tool use in the workplace.
- Promote a culture of safety and awareness among peers when using power tools.
- Assessment Criteria: Group discussion and written assessment on safety regulations and practices related to power tool usage.

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By completing this course, learners will gain valuable skills in selecting, using, and caring for engineering power tools, contributing to enhanced safety and efficiency in engineering tasks.