

NOCC-A21 Electrician: Competence Package

| <b>Relevant Occupation/trade title:</b> Electrician  |   |  | <b>SAQA ID:</b> 91761   |  |  |
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| <b>Learning Area 1: Prepare for work</b>   |   |  | <b>Total Hours:</b>   | <b>264</b>   |  |
| <b>Learning Project 7: Comply and adhere to Occupational Health and safety and perform (OHS Act), First Aid and fire fighting activities- Level 1</b>              |   |  | <b>Total Hours:</b>   | <b>40</b>  |  |
| <b>Requisite learning areas/projects to be in place (Pre-requisite and co-requisite):</b>  |   | <b>LA 1 - LP 1, 2</b>  |   |  |  |
| <b>Learning project description: Understand, comply and adhere to Occupational Health and Safety (OHS Act), and perform First Aid and fire fighting activities</b> |   |  |   |  |  |
| Activity phase   | Practical Skills Modules Content  | Underpinning Knowledge Module Content  | Work Experience Module Content (Exposure to be given)   | Didactical-methodological advice   | Learning materials/Tools and Equipment   |
| <b>Reference to QCTO Curriculum</b>  | PM-02-PS01<br>PM-05-PS03  | KM-01-KT01<br>KM-05-KT02<br>KM-05-KT02   | WM-None   |  |  |
| <b>Planning/Preparation</b>  | <p><b><u>Provide access to (Given):</u></b><br/>Different work scenarios and material as specified in last column</p> <p><b><u>Apprentices must be able to do/perform the following (hard and soft) skills:</u></b></p> <p><b><u>Follow workplace procedures for hazard identification and risk control:</u></b></p> <ul style="list-style-type: none"> <li>Identify the responsibilities and duties of employees in relation to the relevant Occupational Health &amp; Safety Act in day-to-day actions</li> <li>Understand the relevant work place procedures in terms of hazard identification and risk control</li> <li>Recognise and categorise</li> </ul> | <p><b><u>Knowledge of:</u></b></p> <ul style="list-style-type: none"> <li>Occupational health and safety legislation and regulations for workplace safety within electrical industry</li> <li>Procedures for the use of personal protective clothing and equipment</li> <li>Importance of safe premises, buildings and security in an industrial setting and the consequences of non-compliance</li> <li>Typical hazards associated with a range of work environments in the electrical industry</li> <li>Procedures used to control the risks associated with these hazards</li> <li>Protection devices (Refer to LA 1 LP 9)</li> </ul> | <p><b><u>Under supervision:</u></b></p> <ul style="list-style-type: none"> <li>Participate in prescribed OHS arrangements in the workplace</li> <li>Participate in regular toolbox talks</li> <li>Evaluate safety risks in relation to given work tasks and adopt preventative measures</li> <li>Perform an OHS evaluation of the workplace and provide a report to mentor/superior on identified risks and potential preventative measures</li> <li>Secure a work area with the applicable safety signage</li> </ul> | Lecture, presentations, You-Tube<br>Practical demonstrations, Role play, Practical group work & Individual practice sessions under supervision | <p><b><u>Print materials, electronic files, software applications incl.:</u></b></p> <ul style="list-style-type: none"> <li>Legislation on OHSA</li> <li>Required documentation for risk assessment and documentation</li> </ul> <p><b><u>Training workshop and laboratory equipment incl.:</u></b></p> <ul style="list-style-type: none"> <li>Relevant PPE</li> <li>Appropriate fire extinguisher for a given type of fire</li> </ul> |

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|                                  | <p>safety risks in relation to given work scenarios</p> <ul style="list-style-type: none"> <li>Acquire safe work methods for controlling risk prior to undertaking a work assignment</li> <li>Identify appropriate PPE for given work scenario</li> </ul>   | <p><b>Emergency, fire and accident:</b></p> <ul style="list-style-type: none"> <li>Causes, prevention and control of fires</li> <li>Basic process of fighting a fire.</li> <li>Procedures for reporting accidents,</li> <li>Evacuation procedures</li> <li>Appropriate Basic First Aid measures</li> </ul>   | <ul style="list-style-type: none"> <li>Conduct a safety talk regarding working at heights with other staff members informing them on the applicable risks and required PPE</li> <li>Exercise initial First Aid measures in the event of a mock accident</li> <li>Exercise fire fighting measures in a mock exercise</li> <li>Lift, carry and handle hazardous substances</li> <li>Store hazardous substances following safety procedures</li> <li>Check extent to which PPE is used and the condition and availability of PPE at the workplace</li> </ul> |  |  |
| <b>Implementation/ Execution</b> | <p><b>Participate in risk control measures</b></p> <ul style="list-style-type: none"> <li>Recognise hazards in the work area and report them to appropriate personnel</li> <li>Wear appropriate PPE</li> <li>Implement and monitor risk control measures in relation to identified hazards</li> <li>Apply correct lifting and handling techniques</li> <li>Follow company procedures to eliminate identified hazards</li> </ul> <p><b>Participate in simulated incidents (accident, fire, etc.)</b></p> <ul style="list-style-type: none"> <li>Follow workplace procedures for dealing with accidents, fires and emergencies according to work procedures, scope of responsibility and competence level</li> <li>Establish and complete OHS records of incidents</li> </ul> | <p><b>Manual handling practices in the workplace including:</b></p> <ul style="list-style-type: none"> <li>Correct procedures for lifting and carrying to prevent manual handling injuries</li> </ul> <p><b>Usage of chemicals in the workplace incl.:</b></p> <ul style="list-style-type: none"> <li>Classification of chemicals as hazardous substances and/or dangerous goods</li> <li>Safe storage procedures for chemicals</li> <li>Purpose and interpretation of material safety data sheet (MSDS)</li> </ul> <p><b>Working at heights at the workplace incl.:</b></p> <ul style="list-style-type: none"> <li>Identification of work area as a height risk and use of appropriate safety equipment to prevent a fall</li> </ul> <p><b>Working in confined spaces incl.:</b></p> <p>Identifying workplace situations that could be classified as a confined space and control measures for working in a designated confined space</p> |   |  |  |
| <b>Evaluation/ Documentation</b> | <p><b>Maintain workplace in a safe, secured and clean condition</b></p> <ul style="list-style-type: none"> <li>Complete relevant OHS records</li> <li>Clean work area, make it safe, and follow sustainable energy</li> </ul>   |  |   |  |  |

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|  | <p>practices</p> <ul style="list-style-type: none"> <li>• Secure and store equipment in designated locations and positions</li> <li>• Dispose of waste materials following environmental requirements</li> <li>• Store dangerous substances safely following relevant procedures</li> </ul> | <p><b>Typical physical and psychological hazards at the workplace incl:</b></p> <ul style="list-style-type: none"> <li>• Short and long term effects of excessive noise and techniques to avoid damage to hearing due to excessive noise</li> <li>• Effects of thermal stress and ultraviolet (UV) radiation on the human body and work practices to protect against thermal stress and UV radiation.</li> <li>• Dangers associated with laser operated equipment and tools and suitable protective measures to overcome the danger</li> <li>• Detrimental effects and dangers of drug and alcohol use in the workplace</li> </ul> <p><b>Working safely with electricity incl:</b></p> <ul style="list-style-type: none"> <li>• Common causes of electrical accidents</li> <li>• Effects of electric shock on the human body</li> <li>• Precautions that can minimise the chance of electric shock (earthing, extra low voltage, fuses, circuit breakers and residual current devices – RCDs)</li> </ul> <p><b>First Aid and life support in the workplace incl:</b></p> <ul style="list-style-type: none"> <li>• Responsibilities of the First Aider</li> <li>• Priorities of first aid management for any accident or injury</li> <li>• Procedures required at an accident scene</li> </ul> |  |  |  |
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|   |            | <ul style="list-style-type: none"> <li>• Effect of cardio pulmonary arrest on the body</li> <li>• Managing conditions of airway obstruction, respiratory arrest and cardio pulmonary arrest including CPR</li> <li>• Signs and symptoms of an altered level of consciousness and management of a casualty with an altered level of consciousness.</li> <li>• Signs and symptoms of shock and management of a casualty in shock</li> </ul> |  |  |  |
| <b>Total</b>  | Hours : 40 |   |  |  |  |
| <b>Specialisation additions</b>   |            |   |  |  |  |
| <b>Assessment guidance</b>  |            |   |  |  |  |
| <ul style="list-style-type: none"> <li>• Self assessment</li> <li>• Group assessment</li> <li>• Theory test</li> </ul> <p><b>Criteria for assessment:</b></p> <ul style="list-style-type: none"> <li>• Identify OHS preparations needed when entering a workplace</li> <li>• Identify potential hazards a workplace and review the effectiveness of health and safety measures</li> <li>• Explain Fire fighting procedures and techniques including Fire fighting and safety equipment required</li> <li>• Explain basic First aid procedures including CPR / Abdominal Thrust</li> </ul> |            |   |  |  |  |