1. Title	Understand basic methods and techniques of winding and repairing simple transformers
2. Code	EMELDE107A
3. Range	Applicable to the works of design, material selection, winding preparations, winding, assembly, baking and impregnation, inspection and testing for winding and repairing transformers. Understand the construction of simple transformers and the functions of their components, general materials used for winding and their uses, and basic methods and techniques of winding and repairing simple transformers.
4. Level	1
5. Credit	3
6. Competency	Performance Requirements 6.1 Basic construction of transformers and functions and applications of their components ♦ Understand popular types of transformers such as auto-coupled, isolated and choke winding; iron core-type and shell-type; single-phase, three-phase, high-frequency power supplies ♦ Understand common terms and units relevant to transformers, such as: primary side, secondary side, power（VA）, turns ratio, copper loss and iron loss ♦ Understand the basic functions and simple applications of transformers such as stepping up or down the voltage during power supply or distribution 6.2 Understand general materials used for winding, general winding and handling process for transformers, and instruments used for basic testing of transformers ♦ Understand popular winding materials such as winding wire, insulating materials, iron core and assembling materials ♦ Understand the names, specifications and uses of the following materials: enamelled wire number, thickness of insolated paper, core size, terminal current value ♦ Understand the whole process of transformer winding including the basic assembly of transformer ♦ Understand the reasons and process of baking and impregnation such as : damp proof and noise proof; baking temperature and time ♦ Understand instruments generally used to test transformers, such as multi-meter, insulation resistance tester, power meter, voltage withstand tester and thermometer
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Capable to understand the construction and applications of general transformers; (ii) Capable to understand the types, specifications and applications of basic materials of transformers; and (iii) Capable of understand the process of winding a simple transformer.
8. Remarks	