1. Title	Aircraft metal components assembly by using fasteners	
2. Code	EMAMWS466A	
3. Range	Assembly of parts in an aircraft hangar or workshop.	
4. Level	4	
5. Credit	9	
6. Competency		Performance Requirement
	6.1 Types of fasteners and basic aerodynamics	♦ Understand the various types of fasteners, covering: • screw nomenclature • identification and differentiation of different types • uses and applications, including compatibility with different engineering materials ♦ Understand the concept of basic aerodynamics
	6.2 Assembly methods using different fasteners	♦ Able to review the maintenance documents and procedures to decide on maintenance task. ♦ Able to make preparation for the work area, obtain and check the resources for serviceability or status, and set up in accordance with the procedures,e.g. publications, materials, fasteners, heat treatment states, tools, safety equipment, jigs, patterns, fixtures, environmental conditions. ♦ Able to prepare the component parts for assembly in accordance with the procedures. Range clean, inspect, mark out, align.

	♦ Able to prepare the fastener holes in accordance with the procedures,e.g. determine physical clearance. drill, ream, countersink, deburr, dimple.Able to make preparation for surfaces of parts in accordance with the procedures,e.g. clean, chemically convert, apply jointing compound, paint. ♦ Able to assemble parts in accordance with the procedures,e.g. adjust to fit, fit skin clamps and/or alignment rivets, align fastener holes. ♦ Able to install fasteners in accordance with the procedures,e.g. blind and solid shank rivets, blind and solid bolts, special fasteners. ♦ Able to rectify the defects in accordance with the procedures,e.g. misalignment, deflections, malformed fasteners, stress raisers, foreign objects. ♦ Able to apply sealant in accordance with the procedures,e.g. weather proofing, sealing. ♦ Able to perform inspections in accordance with the procedures. ♦ Able to apply correct methods to assemble engineering parts, ensuring : • sufficient strength at the joint e.g. application of correct fasteners • streamlining of the assembly

	6.3 Professional approach	♦ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task. ♦ Able to complete the task within the stipulated duration. ♦ Able to prepare the component for use, storage or transit in accordance with the procedures,e.g. locking, inhibiting, blanking, packing. ♦ Able to return resources to service or storage and check the resources are for serviceability in accordance with the procedures,e.g. tools, equipment, safety equipment. ♦ Able to handle the unused parts and materials in accordance with the procedures,e.g. serviceable, unserviceable, surplus, waste, scrap, hazardous. ♦ Able to complete the documentation in accordance with the procedures. ♦ Able to complete the task in the work area in accordance with the procedures,e.g. tool control, cleanliness, tidiness, return of publications, preparation for next activity.
7. Assessment Criteria	The integral outcome requirement of this UoC are: (i) Able to make preparation for the assembly of components. (ii) Able to assemble the components. (iii) Able to complete all the requirements associated with the assembly task.	

8. Remarks	(Ref: HKAR-66 Module 6.1-6.5, 7.5, 7.18 & 8) The Credit in this UoC is on the assumption of the person already possessed the basic workshop practices, use of tools and work safety. (Ref: HKAR-66 Module 11.1 - 11.3, 12.1, 12.3, 12.5, 13.1 & 13.2) The Credit in this UoC is on the assumption of the person already possessed foundation knowledge in the use of general assembly tools. NZQA - 4078