1. Title	Metal fatigue evaluation		
2. Code	EMPEIT404A		
3. Range	Perform metal fatigue evaluation in general industrial plants, power plants or other places.		
4. Level	4		
5. Credits	6		
6. Competency		Performance Requirements	
	6.1	Basic knowledge of metal fatigue evaluation	♦ Know about the mechanical properties of metal • Stress • Strain • Young's Modulus ♦ Know about the main causes of metal fatigue • Cyclic loading • Cyclic stress or strain • Damage accumulation ♦ Know the formula of evaluating metal fatigue
	6.2	Methods and procedures of metal fatigue evaluation	♦ Make metal dummies or dummy parts ♦ Set appropriate environment for cyclic loading ♦ Perform cyclic loading ♦ Measure and identify the fatigue performance criteria ♦ Record the data obtained and the breaking process ♦ Compile metal fatigue evaluation report
	6.3	Professionalism in evaluating metal fatigue	♦ Perform metal fatigue evaluation according to guidelines ♦ Perform metal fatigue evaluation in compliance with the code of safety and the requirements of the codes of practice
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Capable to set the environment and perform cyclic loading; (ii) Capable to use data obtained to measure and identify the fatigue performance; (iii) Capable to compile metal fatigue evaluation report.		
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses fundamental knowledge of material properties.		