1. Title	Human factors II (Mechanics Repair and Maintenance)
2. Code	EMAMBG432A
3. Range	The knowledge is needed for a wide range of aircraft repair and maintenance works,e.g. applicable to aircrafts, analysis, machineries, airworthiness, airframes, avionics, materials, tests, documentation, safety, health and tools etc.
4. Level	4
5. Credit	3
6. Competency	Performance Requirement 6.1 Knowledge ♦ Able to understand the general of human factor • The need to take human factors into account. • Incidents attributable to human factors / human error. • 'Murphy's' law. ♦ Able to understand the human performance and limitations • Vision. • Hearing. • Information processing. • Attention and perception. • Memory. • Claustrophobia and physical access. ♦ Able to understand the social psychology • Responsibility: individual and group. • Motivation and de-motivation. • Peer pressure. • 'Culture' issues. • Team working. • Management, supervision and leadership.

	♦ Able to understand the factors affecting performance • Fitness / health. • Stress: domestic and work related. • Time pressure and deadlines. • Workload: overload and underload. • Sleep and fatigue, shiftwork. • Alcohol, medication, drug abuse. ♦ Able to understand the physical environment • Noise and fumes. • Illumination. • Climate and temperature. • Motion and vibration. • Working environment. ♦ Able to understand the tasks • Physical work. • Repetitive tasks. • Visual inspection. • Complex systems. ♦ Able to understand the communication • Within and between teams. • Work logging and recording. • Keeping up to date, currency. • Dissemination of information. ♦ Able to understand the human error • Error models and theories. • Types of error in maintenance tasks. • Implications of errors (i.e. accidents). • Avoiding and managing errors. ♦ Able to understand the hazards in the workplace • Recognising and avoiding hazards. • Dealing with emergencies.

	6.2 Theoretical and practical aspects	♦ Able to apply the following knowledge in the aircraft maintenance. • General of human factor • Human performance and limitations • Factors affecting performance • Communication • Human error • Hazards in the workplace
	6.3 Professional approach	♦ Able to understand the principal elements of the subjects. ♦ Able to understand the general knowledge of the theoretical and practical aspects of the following subjects. • General of human factor • Human performance and limitations • Factors affecting performance • Communication • Human error • Hazards in the workplace ♦ Able to apply the knowledge in the aircraft maintenance task.
7. Assessment Criteria	The integral outcomes requirement of this UoC are: (i) Able to understand the theoretical fundamentals of the subjects. (ii) Able to give a general description of the subjects using, as appropriate, typical examples. (iii) Able to use mathematical formulae in conjunction with physical laws describing the subjects. (iv) Able to read and understand sketches, drawings and schematics describing the subjects. (v) Able to apply the knowledge relating to mechanics repair and maintenance in a practical manner using detailed procedures.	
8. Remarks	Ref: HKAR-66 Module 9: Human factors	