

Part-BFCL BPL Examinations – 040 Human Performance

Syllabus Reference	AMC1 BFCL.130 Reference	Syllabus Details & Associated Learning Objective
040.00.00.00	2	HUMAN PERFORMANCE
040.01.00.00	2.1	Human factors: basic concepts
040.01.01.00		Human factors in aviation
040.01.01.01		Becoming a competent pilot
040.01.02.00	2.2	Basic aviation physiology and health maintenance
040.01.02.01		The atmosphere:
		(a) composition;
		(b) gas laws.
040.01.02.02		Respiratory and circulatory systems:
		(a) oxygen requirement of tissues;
		(b) functional anatomy;
		(c) main forms of hypoxia (hypoxic and anaemic):
		(1) sources, effects and countermeasures of carbon monoxide;
		(2) counter measures and hypoxia;
		(3) symptoms of hypoxia.
		(d) hyperventilation;
		(e) the effects of accelerations on the circulatory system;
		(f) hypertension and coronary heart disease.
040.02.01.00		Man and environment
040.02.01.01		Central, peripheral and autonomic nervous systems
040.02.01.02		Vision:
		(a) functional anatomy;
		(b) visual field, foveal and peripheral vision;
		(c) binocular and monocular vision;
		(d) monocular vision cues;
		(e) night vision;
		(f) visual scanning and detection techniques and importance of 'look-out';
		(g) defective vision.
040.02.01.03		Hearing:
		(a) descriptive and functional anatomy;
		(b) flight related hazards to hearing;
		(c) hearing loss.
040.02.01.04		Equilibrium:
		(a) functional anatomy;
		(b) motion and acceleration;
		(c) motion sickness.
040.02.01.05		Integration of sensory inputs:
		(a) spatial disorientation: forms, recognition and avoidance;
		(b) illusions: forms, recognition and avoidance:
		(1) physical origin;
		(2) physiological origin;

		(3) psychological origin.
		(c) approach and landing problems.
040.03.00.00		Health and hygiene
040.03.01.01		Personal hygiene: personal fitness
040.03.01.02		Body rhythm and sleep:
		(a) rhythm disturbances;
		(b) symptoms, effects and management.
040.03.01.03		Problem areas for pilots:
		(a) common minor ailments including cold, influenza and gastro-intestinal upset;
		(b) entrapped gases and barotrauma, (scuba diving);
		(c) obesity;
		(d) food hygiene;
		(e) infectious diseases;
		(f) nutrition;
		(g) various toxic gases and materials.
040.03.01.04		Intoxication:
		(a) prescribed medication;
		(b) tobacco;
		(c) alcohol and drugs;
		(d) caffeine;
		(e) self-medication.
040.04.00.00	2.3	Basic aviation psychology
040.04.01.00		Human information processing
040.04.01.01		Attention and vigilance:
		(a) selectivity of attention;
		(b) divided attention.
040.04.01.02		Perception:
		(a) perceptual illusions;
		(b) subjectivity of perception;
		(c) processes of perception.
040.04.01.03		Memory:
		(a) sensory memory;
		(b) working or short term memory;
		(c) long term memory to include motor memory (skills).
040.05.00.00		Human error and reliability
040.05.01.01		Reliability of human behaviour
040.05.01.02		Error generation: social environment (group, organisation)
040.06.00.00		Decision making
040.06.01.01		Decision-making concepts:
		(a) structure (phases);
		(b) limits;
		(c) risk assessment;
		(d) practical application.
040.07.00.00		Avoiding and managing errors: cockpit management
040.07.01.01		Safety awareness:
		(a) risk area awareness;
		(b) situational awareness.
040.07.01.02		Communication: verbal and non-verbal communication

040.08.00.00		Human behaviour
040.08.01.01		Personality and attitudes:
		(a) development;
		(b) environmental influences.
040.08.01.02		Identification of hazardous attitudes (error proneness)
040.09.01.00		Human overload and underload
040.09.01.01		Arousal
040.09.01.02		Stress:
		(a) definition(s);
		(b) anxiety and stress;
		(c) effects of stress.
040.09.01.03		Fatigue and stress management:
		(a) types, causes and symptoms of fatigue;
		(b) effects of fatigue;
		(c) coping strategies;
		(d) management techniques;
		(e) health and fitness programmes;