

Private Pilot Licence Examinations – 040 Human Performance Aeroplane and Helicopter

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

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

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