

Private Pilot Licence Examinations – 060 Navigation Aeroplane and Helicopter

Syllabus Reference	Syllabus details & Associated Learning Objective	Aeroplane		Helicopter	
		PPL	Bridge Course	PPL	Bridge Course
060.00.00.00	NAVIGATION				
061.00.00.00	GENERAL NAVIGATION				
061.01.00.00	Basics of navigation				
061.01.01.00	The solar system				
061.01.01.01	Seasonal and apparent movements of the sun	x		x	
061.01.02.00	The earth				
061.01.02.01	Great circle, small circle and rhumb line	x		x	
061.01.02.02	Latitude and difference of latitude	x		x	
061.01.02.03	Longitude and difference of longitude	x		x	
061.01.02.04	Use of latitude and longitude co-ordinates to locate any specific position	x		x	
061.01.03.00	Time and time conversions				
061.01.03.01	Apparent time	x		x	
061.01.03.02	UTC	x		x	
061.01.03.03	LMT	x		x	
061.01.03.04	Standard times	x		x	
061.01.03.05	Dateline	x		x	
061.01.03.06	Definition of sunrise, sunset and civil twilight	x		x	
061.01.04.00	Directions				
061.01.04.01	True north, magnetic north and compass north	x		x	
061.01.04.02	Compass deviation	x		x	
061.01.04.03	Magnetic poles, isogonals, relationship between true and magnetic	x		x	
061.01.05.00	Distance				
061.01.05.01	Units of distance and height used in navigation: nautical miles, statute miles, kilometres, metres and ft	x		x	
061.01.05.02	Conversion from one unit to another	x		x	
061.01.05.03	Relationship between nautical miles and minutes of latitude and minutes of longitude	x		x	
061.02.00.00	Magnetism and compasses				
061.02.01.00	General principles				
061.02.01.01	Terrestrial magnetism	x		x	
061.02.01.02	Resolution of the earth's total magnetic force into vertical and horizontal components	x		x	
061.02.01.03	Variation-annual change	x		x	
061.02.02.00	Aircraft magnetism				
061.02.02.01	The resulting magnetic fields	x		x	
061.02.02.02	Keeping magnetic materials clear of the compass	x		x	
061.03.00.00	Charts				
061.03.01.00	General properties of miscellaneous types of projections				
061.03.01.01	Direct Mercator	x		x	
061.03.01.02	Lambert conformal conic	x		x	
061.03.02.00	The representation of meridians, parallels, great circles and rhumb lines				

061.03.02.01	Direct Mercator	x		x	
061.03.02.02	Lambert conformal conic	x		x	
061.03.03.00	The use of current aeronautical charts				
061.03.03.01	Plotting positions	x		x	
061.03.03.02	Methods of indicating scale and relief (ICAO topographical chart)	x		x	
061.03.03.03	Conventional signs	x		x	
061.03.03.04	Measuring tracks and distances	x		x	
061.03.03.05	Plotting bearings and distances	x		x	
061.04.00.00	DR navigation				
061.04.01.00	Basis of DR				
061.04.01.01	Track	x		x	
061.04.01.02	Heading (compass, magnetic and true)	x		x	
061.04.01.03	Wind velocity	x		x	
061.04.01.04	Air speed (IAS, CAS and TAS)	x		x	
061.04.01.05	Groundspeed	x		x	
061.04.01.06	ETA	x		x	
061.04.01.07	Drift and wind correction angle	x		x	
061.04.01.08	DR position fix	x		x	
061.04.02.00	Use of the navigational computer				
061.04.02.01	Speed	x		x	
061.04.02.02	Time	x		x	
061.04.02.03	Distance	x		x	
061.04.02.04	Fuel consumption	x		x	
061.04.02.05	Conversions	x		x	
061.04.02.06	Air speed	x		x	
061.04.02.07	Wind velocity	x		x	
061.04.02.08	True altitude	x		x	
061.04.03.00	The triangle of velocities				
061.04.03.01	Heading	x		x	
061.04.03.02	Ground speed	x		x	
061.04.03.03	Wind velocity	x		x	
061.04.03.04	Track and drift angle	x		x	
061.04.04.00	Measurement of DR elements				
061.04.04.01	Calculation of altitude	x		x	
061.04.04.02	Determination of appropriate speed	x		x	
	In-flight navigation				
061.05.00.00	Use of visual observations and application to in-flight navigation	x		x	
061.05.01.00	Navigation in cruising flight, use of fixes to revise navigation data				
061.05.01.01	Ground speed revision	x		x	
061.05.01.02	Off-track corrections	x		x	
061.05.01.03	Calculation of wind speed and direction	x		x	
061.05.01.04	ETA revisions	x		x	
061.06.00.00	Flight log	x		x	
061.07.00.00	RADIO NAVIGATION				
061.07.00.00	Basic radio propagation theory				
061.07.01.00	Antennas				
061.07.01.01	Characteristics	x		x	
061.07.02.00	Wave propagation				
061.07.02.01	Propagation with the frequency bands	x		x	
061.08.00.00	Radio aids				