PILO H2616: General Navigation

Module Title:	General Navigation
Language of Instruction:	English

Credits:	5

NFQ Level:	7

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	This module will be delivered by an EASA approved training organisation.

Module Aim:	To give students an understanding of general navigational principles, such as: The Basics of Navigation; Magnetism and Compasses; Charts; Dead Reckoning Navigation.; In Flight Navigation; Inertial Navigation systems.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Understand the basic principles of navigation
LO2	Understand the significance of magnetism to navigation.
LO3	Describe and interpret navigational charts.
LO4	Understand the principles of dead reckoning navigation.
LO5	Understand the principles of in-flight navigation.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Basics of Navigation The form of the Earth, Position on the Earth, Distance, Great Circle Distance,
Magnetism and compasses Principles of Magnetism, Magnetic Properties, Magnetic Moment, Period of a Suspended Magent, Hard and Soft Iron, Terrestrial Magnetism, Magnetic Variations, Aircraft Magnetism, Determination of Deviation Coefficients, Compass Swing, Compensation Devices, Direct Reading Magnetic Compass, E Type Compass, Gyro Magnetic Compass, Remote Indicating Gyro Magnetic Compass.
Charts Mercator, Lamberts Conformal, Polar Stereographic, Transverse Mercator, Oblique Mercator.
Dead Reckoning Navigation Direction, Speed, Triangle of Velocities, Pooley's CRP 5 Circular Slide Rule, Pooley's-The Triangle of Velocities,
In-Flight Navigation Pilot Navigation Techniques, Relative Velocity, Principles of Plotting, Time, Point of Equal Time and Point of Safe Return and Radius of Action.

Assessment Breakdown	%
End of Module Formal Examination	100.00%

No Continuous Assessment

No Project

No Practical

End of Module Formal Examination				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	No Description	1,2,3,4,5	100.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_EEPLT_D	Bachelor of Science in Pilot Studies	4	Mandatory