

Module Title:	General Navigation
Language of Instruction:	English
Credits:	5
NFQ Level:	8
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	
<i>On successful completion of this module the learner should be able to:</i>	
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	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

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 Magnet, 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

Module Delivered In

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