INFO: Introduction to Aviation Navigation

Module Title:	Introduction to Aviation Navigation
Language of Instruction:	English

Credits:	10

NFQ Level:	6

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	Leacures (live and online) plus independent learning

Module Aim:	The aim of this module is to provide the students with a knowledge and understanding of aircraft navigation and aircraft navigation systems

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Calculate Time – position and distance of the flight
LO2	Determine - Compass Direction, True and Magnetic
LO3	Demonstrate the use of the manual Flight Navigation Computer
LO4	Use and interpret various navigation charts
LO5	Determine the Point of No Return (PNR) and the Critical Enroute Point (CP) using relevant formulae

Pre-requisite learning		
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*		
7583	MATH H1S01	Maths Principles for Flight Dispatchers
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
Time zones, the use of time in calculating distance and position Understanding time in terms of the various time zones; Distance and position as used in navigation in determining the aircrafts position in flight
Compass – true and magnetic, points on the compass Theory and construction; Types of compass; True North and Magnetic North; The use of compass direction(s) when producing an operational flight plan; Gyro heading reference & grid position; Role of GPS.
Manual Flight Computer Understanding the functionally of a manual flight computer as an aid for various computations in flight planning and navigation
International Civil Aviation (ICAO) Annex 4 Charts Charts requirements as specified by the ICAO for conduct of flight operations; Chart requirements of a typical operator including National Charts as specified by the Government and Aviation Authority; Great circle and Rhumb Line Track; Visual flight rules
Using the various charts in calculating the Point of No Return(PNR) Calculating the Point of No Return(PNR) along a specific route based on time, distance and fuel requirements Calculating the Critical Point along a specific route based on distance and time to land fall or arrival airport

Assessment Breakdown	%
Continuous Assessment	30.00%
Practical	20.00%
End of Module Formal Examination	50.00%

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Short Answer Questions	Perform calculations	1,2,5	30.00	n/a

No Project

Practical

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Practical/Skills Evaluation	Use of flight computers and charts	3,4	20.00	n/a

End of Module Formal Examination

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	Learning Outcomes Assessed - All	1,2,3,4,5	50.00	End-of-Semester

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

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Module Workload

Workload: Part Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	Per Semester	1.60
Independent Learning Time	Per Semester	8.40
	Total Hours	250.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_BSFOP_D	Bachelor of Science in Flight Operations	2	Mandatory