

Module Title:	Aircraft Performance	
Language of Instruction:	English	
Credits:	5	
NFQ Level:	7	
Module Delivered In	1 programme(s)	
Teaching & Learning Strategies:	This module will be taught by class lectures, practical scenarios, class discussions and self-directed learning	
Module Aim:	The aim of this module is to enhance the students knowledge understanding of the various factors governing the safe operational performance of the aircraft	
Learning Outcomes		
On successful completion of this module the learner should be able to:		
LO1	Determine aircraft structural strength, load subjectivity, speed limitations	
LO2	Demonstrate an understanding of aircraft operating environment envelope	
LO3	Interpret Runway performance, braking limitations and temperature	
LO4	Understand the importance of Speed performance – Take-off, Climb, Cruise, Enroute, Descent and Landing	
LO5	Explain the impact of meteorology conditions on the performance of an aircraft	
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
7587	AVIA H2S21	Aircraft Weight and Balance
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		

Module Content & Assessment

Indicative Content
Aircraft structures Aircraft structural strengths/limits; load considerations; impact of weight on the aircraft structures
Aircraft Performance due to meteorological conditions Meteorological conditions of rain, temperature, thunderstorms; cumulonimbus effects during flight i.e. icing, turbulence, thunder storms and volcanic ash cloud(s) Altitudes and weather; Weight of aircraft and weather
Aerodynamics impact of wing shapes on an aircraft; angle of attack at take-off, en-route and landing; engine stalling; effects of airflow around the aircraft; wake turbulence
Runway conditions Surface, direction; length; run-off distance; wind direction and speed; braking action; meteorological conditions

Assessment Breakdown	%
Continuous Assessment	40.00%
End of Module Formal Examination	60.00%

Continuous Assessment				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Short Answer Questions	In-class CA assessing 2 of 5 LOs	1,2,3,4,5	40.00	Ongoing

No Project

No Practical

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	60.00	End-of-Semester

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

Module Workload

Workload: Part Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	Per Semester	0.64
Independent Learning Time	Per Semester	4.36
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_BSFOP_D	Bachelor of Science in Flight Operations	3	Mandatory