

Course Title	Flight Performance				
Course Code	AVM223				
Course Type	Compulsory for Air Operations Specialization				
Level	Bachelor (1 st cycle)				
Year / Semester	2 nd Year / 2 nd Semester				
Instructor's name	TBA				
ECTS	5	Lectures / week	3 Hours /14 Weeks	Laboratories / week	None
Course Purpose and Objectives	<p>The Flight Performance course's purpose is to provide the student with the knowledge required in order to understand the performance related issues affecting an aeroplane during all stages of flight. The course aims in analyzing the performance influencing factors and their effect on flight for Class B (Single Engine, Multi-Engine) and Class A (CS25) aeroplanes. For Class A aeroplanes, the performance factors are analyzed in greater depth for each stage of the flight.</p>				
Learning Outcomes	<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> • Describe the main performance related legislation relating to airworthiness and operational regulations. • Define the terms and concepts relating to general performance theory. • Describe the factors that influence the performance Class B – Single Engine aeroplanes during all stages of flight. • Describe the factors that influence the performance Class B – Multi Engine aeroplanes during all stages of flight. • Describe the factors that influence the performance Class A (CS25) aeroplanes during all stages of flight. • Describe and analyse the effects on performance that an inoperative engine may have during flight. 				
Prerequisites	AVM111	Co-requisites	None		
Course Content	<p>The material included in this course cover the following subjects:</p> <ul style="list-style-type: none"> • Performance (aeroplanes): Performance Legislation (airworthiness, operational regulations), General Performance Theory (Stages of flight, definitions/terms/concepts, influencing variables on performance). 				

	<ul style="list-style-type: none"> • Performance Class B - Single-Engine Aeroplanes: Definitions of speeds used, Effect of Variables on Single-Engine Aeroplane Performance, Take-off and Landing, Climb, Cruise and Descent, Use of Aeroplane Performance data (take-off, climb, cruise, landing). • Performance Class B - Multi-Engine Aeroplanes: Definitions of terms and speeds, Effect of Variables on Multi-Engine Aeroplane Performance (take-off and landing, climb/cruise/descent, landing), Use of Aeroplane Performance data (take-off, climb, cruise and descent, landing). • Performance Class A - Aeroplanes Certificated Under CS 25 Only: <ul style="list-style-type: none"> ○ Take-off (definitions of terms used, forces, speeds, distances, fuel consumption, accelerate-stop distance, balanced field length concept, unbalance field length concept, Runway length Limited Take-Off Mass, Take-off climb, obstacle limited take-off, Performance limited take-off mass, Take off performance on wet and contaminated runways, Use of Reduced and Derated Thrust, Take off Performance using different take off flap settings, Take off Performance using increased V2 speed, Brake energy and tyre speed limit, Use of Aeroplane Flight data) ○ Climb (Climb techniques, Influence of variables on climb performance, Use of Aeroplane Flight data). ○ Cruise (Cruise techniques, Max Endurance, Max Range, Long Range Cruise, Influence of variables on cruise performance, Cruise altitudes, Cost index, Use of Aeroplane Flight data). ○ En-route One Engine Inoperative (Drift down, Influence of variables on En-route One Engine Inoperative performance, Use of Aeroplane Flight data). ○ Descent (Descent techniques, Influence of variables on descent performance, Use of Aeroplane Flight data). ○ Approach and Landing (Approach requirements, Landing field length requirement, Influence of variables on landing performance, Quick turnaround limit, Use of Aeroplane Flight data).
Teaching Methodology	Face-to-face
Bibliography	<ul style="list-style-type: none"> • Bristol ATPL (A) Groundschool Manual & CBT Software

Assessment	<table border="1"><tr><td data-bbox="472 191 1011 268">Examinations</td><td data-bbox="1011 191 1213 268">90%</td></tr><tr><td data-bbox="472 268 1011 306">Participation</td><td data-bbox="1011 268 1213 306">10%</td></tr><tr><td data-bbox="472 306 1213 373"></td><td data-bbox="1011 306 1213 373">100%</td></tr></table>	Examinations	90%	Participation	10%		100%
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Participation	10%						
	100%						
Language	English						