COURSE OUTLINE: AVF117 - FLIGHT THEORY/OPERAT

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Approved: Greg Farish, Chair, Aviation Technology - Flight

Course Code: Title	AVF117: FLIGHT THEORY AND OPERATIONS
Program Number: Name	
Department:	AVIATION TECHNOLOGY
Semesters/Terms:	21F
Course Description:	The course introduces the student to basic aerodynamic principles and their underlying theories and how theory translates into practical applications with the use of performance charts for estimating cruise, range, endurance, take off and landing performance. Other performance areas include power and thrust, aircraft loading, design characteristics of various airplane categories and the need to design economically efficient air transportation. Flight instruments are included.
Total Credits:	2
Hours/Week:	2
Total Hours:	24
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	There are no co-requisites for this course.
This course is a pre-requisite for:	AFT120, AVF122, AVT123, ELR104
Essential Employability Skills (EES) addressed in this course:	EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 3 Execute mathematical operations accurately. EES 4 Apply a systematic approach to solve problems. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 6 Locate, select, organize, and document information using appropriate technology and information systems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 11 Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 70%, B A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.
Other Course Evaluation & Assessment Requirements:	In order to be excused from class due to illness or other unforeseen circumstance, students must call the professor at extension 2666 and leave a message prior to the start of class. An email is also acceptable, but must be sent prior to the start of class. Students may request a deferment of a test for compassionate reasons. Compassionate Grounds for deferment will include but not be limited to death of an immediate family member,

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personal illness, or recent diagnosis of a serious illness of a family member. Make-ups will not be permitted after the fact for compassionate reasons.
Dates of tests will be announced at least 1 week in advance.
If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

Books and Required Resources:

FROM THE GROUND UP by MCDONALD
Publisher: AVIATION PUBLISHERS Edition: 29
ISBN: 0973003634

Course Outcomes and Learning Objectives:

Course Outcome 1	Learning Objectives for Course Outcome 1
Flight theory	Students will understand the principles of flight ranging from an introduction to Bernoulli`s Theorem to how an airplane`s wing works, aerofoils, propellers and airplane stability
Course Outcome 2	**Learning Objectives for Course Outcome 2**
Flight Instruments	Students will learn how gyroscopes are used in some instruments, and how others use air pressure. The magnetic compass. Modern electronic flight instruments will be introduced
Course Outcome 3	**Learning Objectives for Course Outcome 3**
Flight Operations	Students will learn general information about things that affect airplanes during flight operations, about aircraft performance, and how to use performance charts to determine take-off and landing distance, and other vital aircraft performance information.
Course Outcome 4	**Learning Objectives for Course Outcome 4**
Weight and Balance	Students will learn the importance of properly loading an airplane, and how to determine if an airplane is properly and safely loaded.

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
FINAL EXAM	50%
tests	50%

Date: August 23, 2021

Addendum: Please refer to the course outline addendum on the Learning Management System for further information.

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