



MODULE SPECIFICATION

Part 1: Information			
Module Title	Flight Test Principles and Practice		
Module Code	UFMFFB-15-M	Level	Level 7
For implementation from	2019-20		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Engineering, Design and Mathematics
Department	FET Dept of Engin Design & Mathematics		
Module type:	Project		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Features: Module Entry Requirements: Students must be science and engineering graduates or equivalent engaged in professions which require a comprehensive understanding of the fundamental concepts flight test.</p> <p>Educational Aims: See Learning Outcomes</p> <p>Outline Syllabus: Measurement of airspeed, pressure errors</p> <p>Trials planning, reporting and risk assessment</p> <p>Flight test instrumentation</p> <p>Avionic systems testing</p> <p>Performance flight testing: Take-off and landing performance, level flight performance, range and endurance, climb and descent performance</p> <p>Stability and control flight testing: Longitudinal static, manoeuvre and dynamic stability, lateral and directional static and dynamic stability, asymmetric flight</p>

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Qualitative evaluation, use of the handling qualities rating scale

Teaching and Learning Methods: Scheduled learning:

This is a 5-day full-time course at FlightSafety (Farnborough) which will involve lectures and exercises on full-flight simulators. Flight test exercises will be conducted on full-flight (level C/D) simulators (Gulfstream IV, Beech King Air, Cessna Citation etc). Hence the course is not dependent on weather or time of year.

Guest speakers from industry will make presentations on pertinent topics. Course notes will be distributed at the start of the course. Additional costs per student will be made for flight simulator exercises. Students would typically receive 3 45-minute sessions of simulator time per team of 3 students. Simulator exercises may be run outside normal office hours depending on scheduling by FlightSafety.

Part 3: Assessment

As a “short fat” module taught in a single week, the single component and element in the assessment will be a project assignment to be submitted after approximately 8 weeks. The assignment will require demonstration of independent learning of theory and critical reflection of their work both in the classroom and during the assignment period outside the classroom. A mix of general and individual written feedback will be provided. The word-length of the assessment is not relevant as the its content will be judged on quality of content and conciseness of expression in order to maximise communication effectiveness and avoid reproduction of taught material, but will normally be expected to be around 3000 to 5000 words.

First Sit Components	Final Assessment	Element weighting	Description
Final Project - Component A	✓	100 %	Project
Resit Components	Final Assessment	Element weighting	Description
Final Project - Component A	✓	100 %	Project

Part 4: Teaching and Learning Methods

Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:	
		Reference
	Flight test methodology	A1
	Assessment of risk in a flight trial	A2
		Reference
	Awareness of professional literature	B1
		Reference
	Planning and executing flight tests for aircraft performance, stability and control analysis	C1
	Planning and execution of flight trials to demonstrate compliance with civilian certification standards	C2
	Structuring a flight test investigation	C3
	Undertaking measurements in a flight test environment	C4
		Reference
	Communication skills	D1
Self-management skills	D2	

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	IT skills in context	D3
	Problem formulation and decision making	D4
	Progression to independent learning	D5
	Awareness of professional literature	D6
	Working with others	D7
Contact Hours	Independent Study Hours:	
	Independent study/self-guided study	115
	Total Independent Study Hours:	115
	Scheduled Learning and Teaching Hours:	
	Face-to-face learning	35
	Total Scheduled Learning and Teaching Hours:	35
	Hours to be allocated	150
	Allocated Hours	150
Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p>https://uwe.rl.talis.com/index.html</p>	

Part 5: Contributes Towards

This module contributes towards the following programmes of study: