MODULE SPECIFICATION

Part 1: Information			
Module Title	Overall Aircraft Landing Gear Concepts		
Module Code	UFMFXH-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

Educational Aims: See Learning Outcomes

Outline Syllabus: The main features of the syllabus are:

Overall Aircraft Design:
Overall Aircraft development process
Finding the Market Opportunity
Understanding the competition
Defining suitable requirements
Configuration selection

Aircraft Operability:
An Airlines view
Airport compatibility
Structures Aspects of operability

Chief Engineers Role:
Challenge of Architecture and Integration
Mission and role of the chief engineer
Technical Leadership

Typical Organisational Models

ATA 32 Key Design Drivers:
Key Functional Design Drivers
Key Regulatory Design Drivers
Shared Resource Design Drivers ie IMA, Electrical , Hydraulic
Key Safety Requirements
Concept Driven Design Requirements

Teaching and Learning Methods: Scheduled Learning:

There is an intensive block delivery of lectures, demonstrations and syndicated exercises. These are scheduled so that the lecture material is reinforced by practical exercises.

Independent Learning:

It is important that learning is guided by the tutors to maintain students' focus during the course. However, following the course, independent learning is required to produce an assessed report.

Contact Hours:

Contact (35 Hours)
Assimilation and skill development (35 Hours)
Coursework 80 (Hours)
Total 150 (Hours)

Contact hours include a combination of lectures and support learning such as practical demonstrations and syndicate exercises.

Part 3: Assessment

The assessment will cover the critical aspects of Development and their links to Aircraft Conceptual Design.

The report will be assessed based on the student demonstrating the Learning Outcomes. The nature of the assessment will be a significant piece of individual work undertaken after the taught part of the module to allow the synthesis and evaluation of taught material in the individual's particular work context.

As a focused, intensive block delivery, the assessment aims to determine the student's ability to implement and reflect upon the skills learnt. The assessed report is to be submitted after approximately 8 weeks from the workshop.

The assessment requires demonstration of independent learning of theory and critical reflection of the student's work, both in the classroom and especially during the assignment period outside the classroom. Students are expected to be able to show through the reflective element how they have achieved the module's learning outcomes.

A mix of general and individual written feedback will be provided. The report is normally expected to be between 4000 and 5000 words in length.

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

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will achieve the following learning outcomes:

Module Learning Outcomes	Reference
Demonstrate knowledge and understanding of processes involved in the overall development of an Aircraft and critically evaluate how it influences the architecture of the different ATA 32 Systems.	MO1
Demonstrate an understanding of how the different Aircraft Top Level requirements effect the overall Aircraft concept	MO2
Interpret how the overall design process needs to be able to manage solution iteration to arrive at the best overall Aircraft solution	MO3
Analyse the effectiveness of the iterative design process and the optimum level of iteration	MO4
Evaluate and analyse overall ATA 32 system Architectures and demonstrate an understanding of the compromises needed to arrive at the best configuration for the Aircraft	MO5

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

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/index.html

Part 5: Contributes Towards

This module contributes towards the following programmes of study: