Module Specification

Pilot and Airline Operations

Version: 2025-26, v5.0, Approved

Contents

Part 1: Information

Module title: Pilot and Airline Operations

Module code: UFMFAW-30-3

Level: Level 6

For implementation from: 2025-26

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Engineering

Partner institutions: None

Field: Engineering, Design and Mathematics

Module type: Standard

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Professional airline pilots works in an extremely sophisticated and demanding environment. After extensive training and proficiency checks, as an employee of an airline, pilots are subject to strict licensing requirements, mandatory continuous training, personal and professional development, strict safety and operational regulations, financial pressures, and a complex legal structure. This module introduces a future professional pilot to the regulatory framework that impacts on, and determines pilot and airline operations.

Features: Not applicable

Educational aims: Provide student-pilots with insights into the broader context of the airline industry, including air-carrier structure, certification and regulatory requirements, as well as, flight crew regulations.

Outline syllabus: Topics covered are likely to include, but not limited to:

Origins and source of international air law and regulations.

Safety and quality in the aviation and aerospace industry.

Certified organisations - foundations, mandatory structure and stakeholders, responsibilities and privileges.

Air operators (AOC, AWC, SPO).

Flight crew licensing - introduction to ATP training.

The role, responsibilities and privileges of a crew member in the cockpit and the airline.

Pilot recruitment and assessment process.

Part 3: Teaching and learning methods

Teaching and learning methods: Theoretical and formal knowledge is delivered via lectures supported by tutorial sessions.
Where possible, guest representatives from the airline industry, training organisations and authorities will support learning and lecture delivery. The tutorials will consolidate learning from the lectures through group discussions, group and individual tasks including critical analysis of case studies. Sample simulator sessions will be used where appropriate.

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

MO1 Self manage learning and communication skills, to demonstrate the ability to present sustained arguments using appropriate problem solving skills and established techniques of analysis and enquiry.

MO2 Critically reflect on their learning in an academic and professional context, exhibiting an appreciation of the limits of knowledge and recognition of the value of continuing professional development.

MO3 Express appropriate levels of knowledge and understanding of commercial airline operations, including regulatory requirements, and piloting aspects of initiative, personal responsibility, decision making and airmanship in the cockpit and airline environments.

MO4 Critically evaluate existing legal and procedural processes to make judgements and solve problems in the context of an airline operator.

MO5 To contextualise at a fundamental level how pilots operate in a dynamic flight environment, and how engineering theoretical principles apply to real life flight.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Lectorials = 24 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://rl.talis.com/3/uwe/lists/C8C09931-E3D9-1A98-273C-C48788A08E9B.html?lang=en-US&login=1

Part 4: Assessment

Assessment strategy: The assessment consists of two summative tasks and provision of evidence of flight training:

1. A technical report on the broad context of Pilot and Airline Operations with a reflective section on the module and wider university experience allowing students to demonstrate:

A systematic understanding of the wider context in which pilots and airlines operate;
An ability to find information related to piloting and airline regulations and certification;
An appreciation of the uncertainty, ambiguity and limits of knowledge;
Critical analysis and critical reflection skills.

2. An online e-assessment to consolidate knowledge and understanding of theoretical foundations.

Students are additionally required to provide evidence of 20 hours of practical flight training.

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Assessment tasks:

Examination (Online) (First Sit)
Description: An e-assessment on the principles of current regulation and organisation of the airline operator.
Weighting: 25 %
Final assessment: No
Group work: No
Learning outcomes tested: MO3

Report (First Sit)
Description: Technical report
Weighting: 75 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4

Field work (First Sit)
Description: Evidence of 20 hours of practical flight training
Weighting: 0 %
Final assessment: No
Group work: No
Learning outcomes tested: MO5

Examination (Online) (Resit)
Description: An e-assessment on the principles of current regulation and organisation of the airline operator.
Weighting: 25 %
Final assessment: No
Group work: No
Learning outcomes tested: MO3

Report (Resit)
Description: Technical report
Weighting: 75 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3, MO4

Field work (Resit)
Description: Evidence of 20 hours of practical flight training
Weighting: 0 %
Final assessment: No
Group work: No
Learning outcomes tested: MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2023-24

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2023-24

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2022-23

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2023-24

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2022-23

Aerospace Engineering with Pilot Studies {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2021-22

Aerospace Engineering with Pilot Studies {Foundation} [Frenchay] BEng (Hons) 2022-23

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2022-23

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2022-23