EAS311 A Primer on Aerospace and Aviation@Cranfield

Level: 3

Credit Units: 10 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JULY

Synopsis:

This is a 5-day, full-time compulsory course examined by an end-of-course PortFolio (or end-of-course assessment, ECA). Students are initially taken up on a flight sortie in a training aircraft at Cranfield University to learn how to evaluate flight performance of an aircraft. The other parts of the course covers aspects of wind tunnel testing, airport operations, accident and emergency handling and accident investigation.

Topics:

- Jestream Flight Laboratory Course – a flight performance and evaluation of the aerodynamics of the Jet Stream aircraft.
- Wind Tunnel Testing and Experimental Methods
- Airport Operations
- Accident and Emergency Handling
- Accident Investigation
- Aircraft Structural Analysis

Learning Outcome:

- Describe the process and carry out a flight performance analysis of the Jetstream Aircraft after a flight sortie
- Explain the significance of aircraft bird strike damage and the preventive measures employed to prevent them from occurring
- Explain the functions of the various airport management departments
- Conduct a mock air accident investigation exercise
- Differentiate the design and operational differences amongst, subsonic, transonic and supersonic wind tunnels
- Explain the methodology behind air emergency and accident handling

Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	TUTOR-MARKED ASSIGNMENT 1	30
Overall Examinable Components	ECA	70
Total		**100**