

AV 235 : HUMAN FACTORS

Transcript title

Human Factors

Credits

4

Grade mode

Standard letter grades

Contact hours total

40

Lecture hours

40

Description

An introduction to the field of human behavior and characteristics as critical factors in the design and operation of electronic/machine systems. Emphasis is on crew resource management and human factors, including the study of human performance in complex systems with an examination of personality, stress, anxiety, fatigue, communication skills, decision-making, situational awareness, analysis of aviation and accidents, and practical application of human factors and performance to modern aviation.

Learning outcomes

1. The student will learn human behavior and characteristics as critical factors in the design and operation of electronic/machine systems.
2. Student will comprehend crew resource management and human factors, including the study of human performance in complex systems with an examination of personality, stress anxiety, fatigue, communication skills, decision-making, situation awareness, analysis of aviation incidents and accidents, and practical application of human factors and performance to modern aviation.

Content outline

Basic Concepts and Human Factors Overview
The Human In Flight; Physiology
Sensory Systems
Human Factors in Maintenance
Information Processing
Managing Workload
Avoiding and Managing Error
Organizational Perspectives
Safety Systems
Human Behavior and Decision Making
Fatigue and Performance
Crew Resource Management
Advanced Cockpit Automation

Required materials

Requires textbook and/or online learning materials.

Grading methods

This course is assessed through participation, research paper and presentation, exams, and a final exam.