HF400 - Understanding human behavior

From the Advanced Master TAS Aero (Aeronautical Engineering)

Key elements

Period: **Late November**

Estimated duration: **25 hours**

For whom:
Recent graduates, jobseekers and experienced employees

Location:
ISAE-SUPAERO, Toulouse

Language: **English**

Highlights

- Unique Neuroergonomics approach
- Introduction to several cognitive functions

The objective of this course is to provide engineers with a high-level multi-disciplinary approach to understand human behavior and performance.

All courses and practical works are taught with a view to apply the acquired knowledge to the aeronautical and transportation domains.

Learning objectives

After completing this course, participants will be able to:

- Understand the psychological and biological processes that underlie human performance & mental states
- Be able to interact with experts of the Human Factors and Neuroscience domains to improve flight safety.

Prerequisites

- Master level

Information and registration

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Course Content

- Introduction to Neuroscience and Biopsychology: Central Nervous System
- Sensation v. Perception, Visual and Auditory Perception
- Vigilance, Fatigue & Rhythms
- Attention & Executive Control
- Learning & Memory
- Emotions, Stress & Decision Making
- Executive Functions & Mental Flexibility
- Application Focuses: Pilot/Autopilot Conflict; Airline Pilot Experience

Teaching methods

Teaching methods	Yes
Lectures / tutorial	X
Collaborative learning	
Flipped classroom	
Blended learning (online and face to face)	
Learning by doing	X
Project-based	
Simulation	
Case study	X

Assessment

- Written test (60%)
- Marked Practicals (40%)