

## t.HF - Human Factors

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**Person responsible for the course:** Ruth Esther Häusler Hermann, hasr

**Credits:** 4

**Valid for:** 2010/2011

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### **Learning objectives:**

Acquisition of sound knowledge base and its application for a broad and integrative approach to Human Factors

Recognition of relevance of different Human Factors issues to own field of work/vocational formation

Insight into scientific and methodological aspects for a broad and sustained management of performance and safety from the Human Factors perspective

Acquisition of appropriate approach to address Human Factors issues

Knowledge in "Human Performance and Limitations" part ?Basic Aviation Psychology? for ATP theoretical exam according to JAR-FCL (040 30)

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### **Course content:**

Basics of human performance: Perception, information processing and cognitive architecture

Technology: Design and automation

System: Influencing factors on human performance in human-technical systems

Actions: Decision making and problem solving; errors and violations

Performance limitations: Workload and stress; vigilance and fatigue

Performance enhancement: Motivation, personality and perception; training; Teamwork

Fields of application for Human Factors in aviation, especially safety management

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### **Previous knowledge:**

none

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**Teaching method:**

Type of lesson:	Number of lessons per week:
Lecture	14*(2L+2L)
Tutorial/Practicum	
Group teaching	
Block instruction	
Seminar	

**Assessment:**

According to the table or as specified in writing by the lecture at the beginning of the semester!

Number	Type	Weighting
1	End of term exam	2
1	Exam during the semester	1
1	Further assessments	1

**Language of instruction:**

Deutsch

**Instruction material:**

Script with commented lectures slides, selected literature

ISBN Title Author(s) Publisher Edition Year

Literature Wickens, C. D., Gordon, S. E., & Liu, Y. (2003). An introduction to human factors engineering. New York (etc.): Longman.

Wickens, C. D., & Hollands, J. G. (2000). Engineering psychology and human performance. Upper Saddle River (NJ): Prentice Hall.

**Comments:**

Human Factors is a dual course: Contents cover the demands of the bachelor studies in Aviation, as well as those of JAR FCL (040 03) on Human Performance and Limitations. The attendance of the course is compulsory for candidates for the pilot licence