COURSE DESCRIPTION CARD - SYLLABUS

Course name
The human factor in aviation

Course

Field of study
Aerospace Engineering

Year/Semester

Area of study (specialization)
Onboard systems and aircraft propulsion

Profile of study
general academic

Level of study
First-cycle studies

Course offered in
polish

Form of study
full-time

Requirements
elective

Number of hours

Lecture
30

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:
mgr Magdalena Krzywotulska

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tel.: +48 502 174 131

Responsible for the course/lecturer:

Prerequisites

A student starting this subject should have basic knowledge of general and aviation psychology, the essence and functioning of human cognitive, emotional and motivational processes. They should also have the ability to apply the scientific method in problem solving and be ready to collaborate as part of a team.

Course objective

Acquainting the student with the emotional and motivational processes of a human functioning in normal, difficult and extreme situations. Basic human cognitive processes - perception and attention and their importance in the process of information management in the human - technical object system. Dynamics of small social groups and its application in the process of constructing effective task teams in aviation. Crew / team resource management (CRM).

Course-related learning outcomes

Knowledge

1. has detailed knowledge related to selected issues in the field of human capabilities and limitations when operating an aircraft in flight, its impact on health and the ability to perform air operations, as well as opportunities to improve physical condition

2. has structured, theoretically founded general knowledge covering key flight safety issues and risk assessment

3. has basic knowledge of basic processes occurring in the life cycle of devices, objects and technical systems, as well as their technical description in the field of aviation engineering

Skills

1. can use a language to a degree enabling understanding of technical texts in the field of aviation (knowledge of technical terminology)

2. has the ability to self-study using modern teaching tools, such as remote lectures, websites and databases, teaching programs, e-books

3. can apply the basic technical standards for safety

Social competences

1. Is aware of the importance of maintaining the principles of professional ethics

2. can properly prioritize the implementation of tasks specified by him or others based on available knowledge

3. is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the associated responsibility for the decisions taken

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:

- assessment of knowledge and skills demonstrated on the written test - 1.5 hours

Programme content

The human factor in aviation. Flight safety concepts. Management model (TEM) and SHELL model. Safety culture and safety management. Managing fatigue and stress.

Teaching methods

1. Lecture: multimedia presentation, illustrated with examples given on the blackboard.

Bibliography

Basic

1. Szajnar S.: „Czynnik ludzki w obsłudze urządzeń technicznych”, Skrypt WAT, Warszawa 2010.

2. Janowska Z.: „Zarządzanie zasobami ludzkimi”, Polskie Wydawnictwo Ekonomiczne, 2010

3. Scott W. E., Cummings L. L.: “Zachowanie człowieka w organizacji”, Państwowe Wydawnictwo Naukowe, 1983

Additional

1. www.faa.gov

2. www.easa.europa.eu

Breakdown of average student's workload

	Hours	ECTS
Total workload	42	2,0
Classes requiring direct contact with the teacher	32	1,5
Student's own work (literature studies, preparation for a written test) [1]	10	0,5

[1] delete or add other activities as appropriate