



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

General flight safety

### Course

Field of study

Aerospace Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

### Number of hours

Lecture

10

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

### Number of credit points

1

### Lecturers

Responsible for the course/lecturer:

mgr inż. Magdalena Chmielewska-Stróżyk

Responsible for the course/lecturer:

Wydział Inżynierii Środowiska i Energetyki

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### Prerequisites

The student starting this course should have basic knowledge of general flight safety. They should also have the ability to apply the scientific method to problem solving and be ready to collaborate within a team.

### Course objective

To acquaint the student with aviation safety, procedures and civil aviation regulations.

### Course-related learning outcomes

Knowledge

1. Has extended knowledge of technical vocabulary, in particular specialized terminology used in the fields of science and technology related to aviation engineering  
1. Piloting of aircraft



2. has expanded knowledge necessary to understand profile subjects and specialist knowledge about construction, methods of construction, manufacture, operation, aircraft control, safety systems, economic, social and environmental impact in the field of aviation engineering for selected specialties:

1. Piloting of aircraft
2. Aircraft engines and airframes
3. On-board systems and aviation propulsion

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

#### Skills

1. can use a language to a degree enabling understanding of technical texts in the field of aviation (knowledge of technical terminology)
2. can obtain information from literature, the Internet, databases and other sources. Is able to integrate obtained information, interpret and draw conclusions from them
3. can develop a safety instruction for a simple and medium complex on-board device, machine or technical flying object in specified environmental conditions

#### Social competences

1. Is aware of the importance of maintaining the principles of professional ethics
2. Understands the need for critical assessment of knowledge and continuous learning
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 hour

#### Programme content

Lecture:

Terminology and rules of flight organization. Flight classification and the rules of their performance. Rules for performing some tasks specific to military aviation. Logistics of flights. Organization of flights and its stages. Organization of test flights. The role of individual officials and flight organization services in organizing flights. Documentation of flight organization. Functioning of the flight safety service in military aviation. Safety management goal. Basic concepts: risk, threat, unreliability, safety. System man - technology - environment, losses in the system and their causes, human errors. Structures of systems



and the basics of their modeling and analysis - risk versus security. Security system in military and civil aviation, international and national organization, organization and management of safety in the construction and operation of aircraft. Certification of production, handling and use. Security systems in air traffic and at airports. Licensing of aviation personnel, checks of knowledge, skills and proficiency. State aviation supervision. PART-66

### Teaching methods

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

### Bibliography

Basic

1. Klich E.: „Bezpieczeństwo lotów”, Instytut Technologii i Eksploatacji – PiB, Radom, 2011
2. „Poradnik – Podstawy Zarządzania Ryzykiem w Lotnictwie”, Dowództwo Sił Powietrznych, Warszawa 2010
3. „Instrukcja Bezpieczeństwa Lotów Lotnictwa SZ RP”, Poznań 2014

Additional

### Breakdown of average student's workload

	Hours	ECTS
Total workload	24	1,0
Classes requiring direct contact with the teacher	12	0,5
Student's own work (literature studies, preparation for written tests ) <sup>1</sup>	12	0,5

<sup>1</sup> delete or add other activities as appropriate