



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Aircraft operation safety

### Course

Field of study

Year/Semester

Aviation

2/3

Area of study (specialization)

Profile of study

Air Transport Safety

general academic

Level of study

Course offered in

First-cycle studies

Polish

Form of study

Requirements

full-time

compulsory

### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

15

0

0

Tutorials

Projects/seminars

0

15

### Number of credit points

4

### Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

dr inż. Sławomir Szrama

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Faculty of Civil And Transport Engineering

Piotrowo 3, 60-965 Poznań

### Prerequisites

Knowledge: Basic knowledge of aviation, aircraft and air operations.

Skills: Is able to analyze air operations and implement methods of safety analysis.

Social competences: Is able to formulate concise questions; is able to define problems; is able to conduct self-study in problem solving.

### Course objective

Getting to know all the aspects of the aircraft operations, safety regulations and requirements

### Course-related learning outcomes

Knowledge

1. Student has detailed knowledge related to selected issues in the field of manned and unmanned



aircraft construction, in the field of on-board equipment, control systems, communication and recording systems, automation of individual systems, has basic knowledge of flight simulation training devices and simulation methods used to solve air transport issues.

2. Student has knowledge of aviation safety and management. The student knows the concept of the human factor and methods of assessing human reliability, has detailed knowledge related to selected issues in the field of human capabilities and limitations during aircraft operation in flight, its impact on health and the ability to perform air operations, as well as the possibility of improving physical condition.

#### Skills

1. Student is able to obtain information from various sources, including literature and databases, both in Polish and in English, integrate them properly, interpret them and make a critical evaluation, draw conclusions and exhaustively justify the opinions they formulate.

#### Social competences

1. Student understands that in technology, knowledge and skills very quickly become obsolete.
2. Correctly identifies and resolves dilemmas related to the profession of an aerospace engineer.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Final written test.

#### Programme content

1. Safety Regulations for General Aviation and Commercial Air Transport (PL-6)
2. Definitions, abbreviations and acronyms related to aircraft operations safety.
3. Aircraft operation organizations.
4. Detailed rules and limitations.
5. Aircraft maintenance
6. Continuing airworthiness.
7. Maintenance programme
8. Airworthiness directives
9. Maintenance standards and good practices
10. Accident and incident reporting
11. Aircraft instruments and systems. Onboard safety systems.
12. Manuals, logs and records



## Teaching methods

Lecture

Project

## Bibliography

Basic

1. Convention on International Civil Aviation:

Annex 1 — Personnel Licensing

Annex 6 — Operation of Aircraft

Annex 8 — Airworthiness of Aircraft

Annex 13 — Aircraft Accident and Incident Investigation

Annex 14 — Aerodromes

Annex 18 – The Safe Transportation of Dangerous Goods by Air

Annex 19 – Safety Management

2. Regulation (EU) 2018/1139 of the European Parliament and of the Council

Commission Regulation (UE) 965/2012 – OPS

Rozporządzenie Komisji (UE) 1178/2011 – FCL

Commission Regulation (UE) 139/2014 - ADR

Commission Regulation (UE) 1321/2014 – Continuing AIR

Commission Regulation (UE) 748/2012 – Initial AIR

Commission Regulation (UE) 2017/373 – ATM/ANS

Commission Regulation (UE) 2015/340 – ATCO

Commission Regulation (UE) 996/2010

3. Safety Management Manual (Doc 9859).

4. Manual of Aircraft Accident and Incident Investigation (Doc 9756)

Additional

1. ICAO, IATA, ULC, FAA web sites



### Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,0
Classes requiring direct contact with the teacher	30	1,5
Student's own work (literature studies, preparation for classes, preparation for tests,) <sup>1</sup>	70	2,5

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