



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Airspace management [S1Lot2-ORL>ZPP]

### Course

Field of study

Aviation

Year/Semester

3/5

Area of study (specialization)

Air Traffic Organisation

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

elective

### Number of hours

Lecture

30

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

### Number of credit points

4,00

### Coordinators

mgr inż. Marcin Sypniewski

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### Lecturers

### Prerequisites

Knowledge: Basic knowledge of aviation Skills: Able to analyze presented data and regulations and legal requirements. Able to implement data in new environments Social competences: Prepared to work independently with the presentation of its effects

### Course objective

Familiarization with issues related to airspace management

### Course-related learning outcomes

Knowledge:

1. knows the basic concepts of economics, relating in particular to air transport, has basic knowledge of management and running a business activity and knows the general principles of creating and developing forms of individual entrepreneurship, especially in the aspect of airlines
2. has the ability to self-educate using modern teaching tools, such as remote lectures, Internet websites and databases, teaching programs, e-books

3. has basic knowledge of aviation law, organizations operating in civil aviation and knows the basic principles of functioning of state aviation, has basic knowledge of key issues of functioning of civil aviation

#### Skills:

including analytical, simulation or experimental methods

2. is able to notice legal aspects in the process of formulating and solving tasks related to air transport, in particular use aspects of European and national aviation law regulations

3. is able to analyze the strategies of enterprises and interpret their activities and apply in practice basic tools of

strategic analysis

#### Social competences:

1. understands that in technology knowledge and skills are very important quickly become outdated

2. is aware of the importance of knowledge in solving engineering problems and knows examples and understands the causes of malfunctioning engineering projects that have led to serious financial or social losses

or to serious loss of health or even life

Methods for verifying learning outcomes and assessment criteria Learning outcomes presented above are verified as follows:

Lecture - written test, project - presentation of the completed project in front of the group

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

none

### Programme content

1. International Civil Aviation Organization ICAO and other aviation organizations and institutions

(Eurocontrol, EASA, PAŻP, ULC). ICAO conventions and EU regulations regarding air navigation. Historical conditions of aviation law and the structure of its functioning.

2. Airspace management - FUA, AFUA, FRA.

3. ASM-1: Strategic airspace management

4. ASM-2: Pre-tactical airspace management (AUP)

5. ASM-3: Tactical airspace management

6. Air traffic management systems in Poland, Europe and the world. Formal and legal solutions and technical and functional implementations.

7. Elements and structures of airspace - methods of reservation and principles of use of individual structures

8. Military-civil cooperation in airspace management

9. Principles of airspace management FIR EPWW

10. Role and tasks of PAŻP and other ANSPs in airspace management

### Course topics

Discussion of aviation organizations, airspace management. Detailed discussion of ASM-1, ASM-2 and ASM-3.

Presentation of air traffic management systems, discussion of the structure of airspace and principles of military-civil cooperation.

### Teaching methods

Informative (conventional) lecture (transmission of information in a systematic way) - may be of a course (propaedeutic) or monographic (specialist) nature.

Project method (individual or team implementation of a large, multi-stage cognitive or practical task, the effect of which is the creation of a work)

## Bibliography

### Basic:

1. Piotr Kozłowski, Sumeer Chakuu, Michał Nędza: Podstawy transportu lotniczego, 2012
2. Spyra Z., Witczak O.: Czynniki wpływające na wizerunek portów lotniczych, 2017
3. Pijet-Migoń Edyta: Zmiany rynku lotniczych przewozów pasażerskich w Polsce po akcesji do Unii Europejskiej, 2012

### Additional:

1. Zarządzanie ruchem lotniczym w przestrzeni powietrznej RP, WLOP, Warszawa 2002.
2. Ustawa Prawo Lotnicze.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	47	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	53	2,00