



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Airspace management

### Course

Field of study

Aviation

Area of study (specialization)

Air Traffic Management

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

3/5

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

### Number of hours

Lecture

30

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

### Number of credit points

4

### Lecturers

Responsible for the course/lecturer:

mgr inż. Marcin Sypniewski

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Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 3, 60-965 Poznań

Responsible for the course/lecturer:

### Prerequisites

Knowledge: Basic knowledge of aviation

Skills: Can analyze presented data as well as regulations and legal requirements. He can implement data in new environments

Social competences: Prepared for independent work with the presentation of its effects

### Course objective

Familiarization with issues related to airspace management

### Course-related learning outcomes

Knowledge

knows the basic concepts of economics, relating in particular to air transport, has basic knowledge of



managing and running a business and knows the general principles of creating and developing forms of individual entrepreneurship, especially in the aspect of aviation companies

has the ability to self-study with the use of modern teaching tools, such as remote lectures, websites and databases, teaching programs, e-books

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

#### Skills

can, when formulating and solving tasks related to civil aviation, apply appropriately selected methods, including analytical, simulation or experimental methods

can see legal aspects in the process of formulating and solving tasks in air transport, in particular, use the aspects of European and national aviation law regulations

can analyze the strategies of enterprises and interpret their activities, and can use in practice the basic tools of strategic analysis

#### Social competences

understands that in technology, knowledge and skills very quickly become obsolete

is aware of the importance of knowledge in solving engineering problems and knows examples and understands the causes of faulty engineering projects that have led to serious financial and social losses, or to a serious loss of health and 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 on the forum of the group

#### Programme content

1. International Civil Aviation Organization ICAO and other aviation organizations and institutions (Eurocontrol, EASA, PANSAT, Civil Aviation Authority). ICAO conventions and EU air navigation regulations. Historical determinants 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 - ways of booking and rules for using individual structures

8. Military-civil cooperation in airspace management

9. FIR EPWW airspace management principles 10. The role and tasks of PANSA and other ANSPs in airspace management

### Teaching methods

Information lecture (conventional) (transmission of information in a systematic way) - can be of a course (propedeutic) 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	4,0
Classes requiring direct contact with the teacher	47	2,0
Student's own work (literature studies, preparation for classes, preparation for tests,) <sup>1</sup>	53	2,0

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