COURSE DESCRIPTION CARD - SYLLABUS

Course name
Air traffic safety [S1Lot2-BSP>BRL]

Course

Field of study
Aviation

Year/Semester
2/4

Area of study (specialization)
Unmanned Aerial Vehicles

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

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Lecturers

Prerequisites

Knowledge: Basic knowledge of aviation Skills: Can analyze the presented data as well as legal regulations and requirements. Can implement data in new environments Social competences: Prepared for independent work with a presentation of its effects

Course objective

Getting to know the rules of air traffic safety

Course-related learning outcomes

Knowledge:
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
the 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:
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
can solve tasks using the rules of air traffic and design a runway in accordance with the applicable ICAO requirements

Social competences:
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
can solve tasks using the rules of air traffic and design a runway in accordance with the applicable ICAO requirements

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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

Programme content

Air Traffic Management in the Airspace of the Republic of Poland
Aviation Law
Aviation Safety: Thematic Notes on the European Union
Flight Planning & Monitoring
National Safety Plan
Management of Airport Development

Course topics

Lecture: discussion of key issues related to air traffic safety, including in particular:
1. Planning of airspace operations
2. Opportunities and limitations of the airspace
3. Air operation risk assessment
4. Airspace security in Poland, Europe and the world
5. The role of aviation organizations in ensuring safety - ICAO, EUROCONTROL, EASA
6. The work of an air traffic controller and his role in ensuring safety in space - scope of duties, workload, requirements for controllers, etc.
7. Aviation law - provisions imposed on ANSP related to ensuring safety in the airspace (the so-called Security)
Project: Students under the supervision of the tutor develop a risk assessment of threats to a selected, real air connection - special attention should be paid to threats in the airspace

Teaching methods

Informative (conventional) lecture (providing information in a structured manner) - may be of a course (introductory) or monographic (specialist) character
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. Flight Planning & Monitoring - EASA | Aviationexam, wyd. Jeppsen
2. Huderek-Glapska S., Zarządzanie rozwojem portów lotniczych
3. Krajowy Plan Bezpieczeństwa 2019 - 2022 - ulc.pl
4. Szutowski L., Poradnik pilota samolotowego, Poznań 2007
5. Compa T., Zarządzanie przestrzenią powietrzną, AON, Warszawa 2003

6. Domicz J., Szutowski L., Podręcznik pilota samolotowego, Poznań 2008
7. Wyzwania i zagrożenia bezpieczeństwa i obronności RP w XXI wieku w wymiarze społecznym i technologiczno-środowiskowym - praca zbiorowa pod red. Trejnis Z., Kościelecki L., Oficyna Wydawnicza ASPRA-JR

Additional:
1. Zarządzanie ruchem lotniczym w przestrzeni powietrznej RP, WLOP, Warszawa 2002
2. Ustawa Prawo Lotnicze
3. Ministerstwo Infrastruktury: Bezpieczeństwo w ruchu lotniczym - gov.pl
4. Bezpieczeństwo lotnicze: Noty tematyczne o Unii Europejskiej

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	45	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	55	2,00