POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Air traffic safety

Course

Field of study	Year/Semester
Aviation	2/4
Area of study (specialization)	Profile of study
Air Traffic Organisation	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)
30	0	0
Tutorials	Projects/seminars	
0	15	

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

mgr inż. Marcin Sypniewski

marcin.sypniewski@put.poznan.pl

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 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

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

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

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.

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

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

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	47	2,0
Student's own work (literature studies, preparation for classes, preparation for tests,) [1]	28	1,0

---

[1] delete or add other activities as appropriate