# 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

Safety management systems

Course

Field of study Year/Semester

Aviation 3/6

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)

30 0 0

Tutorials Projects/seminars

15 0

**Number of credit points** 

3

**Lecturers** 

Responsible for the course/lecturer: Responsible for the course/lecturer:

dr inż. Hanna Dzido

email: hanna.dzido@put.poznan.pl

Wydział inżynierii Lądowej i Transportu

ul. Piotrowo 3 60-965 Poznań

#### **Prerequisites**

Knowledge:

The student has basic knowledge of aviation law, organization in civil aviation, as well as quality management systems.

The student knows the basics of mathematics, with particular emphasis on the calculus of probability.

The student has basic knowledge of aviation law and aviation organization as well as quality management systems.

Skills:

The student is able to analyze complex processes: identify and describe their components.

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The student knows the basics of mathematics, with particular emphasis on probability

The student is able to analyze complex processes: identify and describe their components.

Social competences:

The student is able to cooperate in a group, assuming different roles in it.

The student is able to determine the priorities important in solving the tasks set before him

The student demonstrates independence in solving problems, acquiring and improving acquired knowledge and skills.

## **Course objective**

Transfer of knowledge and skills allowing for independent design of safety management system elements that meet the requirements of aviation organizations at the international, European and national level

#### **Course-related learning outcomes**

#### Knowledge

1. 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

- 1. 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
- 2. is able to properly use information and communication techniques, applicable at various stages of the implementation of aviation projects
- 3. can assess at least in a basic scope various aspects of the risk associated with a logistics undertaking in air transport

## Social competences

1. is able to think and act in an entrepreneurial way, incl. finding commercial applications for the created system, bearing in mind not only the business benefits, but also the social benefits of the activity

# Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture - written test, excersise classes - written test

#### **Programme content**

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History of security management. Overview of the main stages in the development of security engineering. The actual role of SMS in civil aviation (division of responsibility between EU and national offices, discussion of the main legal acts, requirements for safety management systems implemented in airlines, examples of requirements implementation, ULC supervision over entities, typical irregularities identified during inspections). Scientific discussion on the problems of security management systems.

## **Teaching methods**

Information lecture (conventional) (transmission of information in a systematic way) - can be of a course (propedeutic) or monographic (specialist) nature

Exercise method (subject exercises, exercises) - in the form of auditorium exercises (application of acquired knowledge in practice - can take various forms: solving cognitive tasks or training psychomotor skills; transforming a conscious activity into a habit through repetition)

## **Bibliography**

#### Basic

- 1. Załącznik 19 do Konwencji o międzynarodowym lotnictwie cywilnym
- 2. Kadziński A., Studium wybranych aspektów niezawodności systemów oraz obiektów pojazdów szynowych, Wydawnictwo Politechniki Poznańskiej, Poznań 2013 ? rozdział 8

#### Additional

- 1. Rozporządzenie Parlamentu Europejskiego i Rady (WE) nr 216/2008 w sprawie wspólnych zasad w zakresie lotnictwa cywilnego i utworzenia Europejskiej Agencji Bezpieczeństwa Lotniczego (z późniejszymi zmianami)
- 2. Safety Management Manual (SMM), ICAO, wyd. 3, 2012

## 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,) <sup>1</sup>	28	1,0

3

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