



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Safety management systems [S1Lot2-BTL>SZB]

Course

Field of study

Aviation

Year/Semester

3/6

Area of study (specialization)

Air Transport Safety

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

15

Projects/seminars

0

Number of credit points

3,00

Coordinators

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Lecturers

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. 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:

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: writing exam

Exercises: writing exam

Programme content

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.

Course topics

1. History of Safety Management - key stages in the development of safety engineering.
2. Role of SMS in Civil Aviation:
3. Division of responsibilities (EU and national institutions).
4. Key legal acts and requirements for safety management systems.
5. Implementation of requirements in aviation enterprises.
6. Supervision by the Civil Aviation Authority (ULC) and common non-compliances identified during inspections.
7. Challenges of safety 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	3,00
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)	28	1,00