



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Methods of air events analysis [S2LiK2P>MAZL]

Course

Field of study

Aerospace Engineering

Year/Semester

1/1

Area of study (specialization)

–

Profile of study

practical

Level of study

second-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

0

Other (e.g. online)

0

Tutorials

0

Projects/seminars

15

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

A student starting this course should have knowledge of aviation law and organizations, have a well-established knowledge of mathematics, physics and aerodynamics, and know the theoretical basis of issues related to aviation safety, be able to obtain information from literature and the Internet.

Course objective

Acquainting with various methods of aviation incident analysis, division and classification of aviation incidents, and the principles of operation of organizations investigating aviation incidents.

Course-related learning outcomes

Knowledge:

1. has a structured, theoretically founded general knowledge covering key issues in the field of flight safety and risk assessment
2. has basic knowledge of aviation organizations and the applicable Polish and European aviation law

Skills:

1. has the ability to self-educate with the use of modern teaching tools, such as remote lectures,

websites and databases, teaching programs, e-books

Social competences:

1. Is ready to critically evaluate the knowledge and content received, recognize the importance of knowledge in solving cognitive and practical problems, and consult experts in case of difficulties in solving the problem on its own
2. is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment, and the related responsibility for decisions made

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge acquired during the lecture is verified by an activity assessment and an exam. The skills acquired as part of the project are verified on the basis of the development of a final project.

Programme content

1. Air transport safety
2. Classification of aviation occurrences categories
3. Quantitative methods of event analysis
4. Qualitative methods of event analysis
5. Risk assessment methods in various modes of transport
6. Events in air traffic
7. Causal models in incident analysis

Course topics

none

Teaching methods

Informative (conventional) lecture (transfer of information in a systematic way) - can be (propedeutical) or monographic (specialist)

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

Bibliography

Basic:

1. Ilościowe metody analizy incydentów w ruchu lotniczym. Skorupski J., Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa, 2018
2. Analiza i badania elementów systemów transportowych różnych gałęzi transportu, Zboiński, Krzysztof. Red., Politechnika Warszawska. Oficyna Wydawnicza, 2014.
3. Odpowiedzialność za szkodę na ziemi wyrządzoną ruchem statku powietrznego, Anna Konert, Wolters Kluwer Polska. LEX a Wolters Kluwer business, 2014.

Additional:

1. Podręcznik klasyfikacji kategorii zdarzeń lotniczych (tzw. „Occurrence Category”) wg systematyki ICAO ADREP oraz ECCAIRS 5 dla organizacji lotniczych, zgodny z wymogami Rozporządzenia Parlamentu Europejskiego i Rady (UE) nr 376/2014

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	45	2,00