



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Air accident investigation

### Course

Field of study

Aviation

Area of study (specialization)

Air traffic organization

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

4/7

Profile of study

general academic

Course offered in

Polish

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

### Lecturers

Responsible for the course/lecturer:

Zbigniew Drozdowski

Responsible for the course/lecturer:

email: [zbigniew.drozdowski@mi.gov.pl](mailto:zbigniew.drozdowski@mi.gov.pl)

tel. 532 427 841

### Prerequisites

Knowledge:

The student understands the risk management process. The student has knowledge about the ways of recognizing the sources of threats and formulating threats. The student has general knowledge of risk and methods of risk assessment of threats and security systems.

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

Skills:

The student is able to recognize the sources/factors of threats using forward and backward methods. He has the ability to formulate threats. The student is fluent in using a suite of computer office programs.

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

Social competences:



The student understands and accepts the need to introduce appropriate restrictions to social, transport and industrial systems that can lead to improved safety of these systems. The student is able to manage the time available to perform the tasks indicated.

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

Getting to know the objectives, elements and structure of the internal security system of the state.  
Getting to know the procedures and acquiring practical skills in the application of threat risk management in the areas related to aviation incidents.

### 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 properly plan and perform experiments, including measurements and computer simulations, interpret the obtained results, and correctly draw conclusions from them

#### Social competences

1. is aware of the importance of knowledge in solving engineering problems and knows examples and understands the causes of faulty engineering projects that have led to serious financial and social losses, or to a serious loss of health and even life

2. is aware of the social role of a technical university graduate, in particular understands the need to formulate and provide the society, in an appropriate form, with information and opinions on engineering activities, technological achievements, as well as the achievements and traditions of the engineer profession

3. correctly identifies and resolves dilemmas related to the profession of an aerospace engineer

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

LECTURE: assessment of knowledge and skills on the written or oral test based on the explanation of selected issues.

PROJECT CLASSES: assessment of knowledge and skills on the basis of project prepared by the student.

### Programme content

Introduction to the subject matter. Program, hourly structure, literature, method of crediting.



## Basic definitions

Legal aspects of air incident investigation - sources of aviation law; EU and national civil aviation regulations. History of Air Accident Investigation in Poland. Procedures - reporting accidents

## Teaching methods

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

Project method

## Bibliography

### Basic

1. Konstytucja Rzeczypospolitej Polskiej z dnia 2 kwietnia 1997 r.
2. Biała Księga Bezpieczeństwa Narodowego RP z 2013 r.
3. Strategia Bezpieczeństwa Narodowego z 2014 r.
4. Ściborek Z, Wiśniewski B., Kuc R.B., Dawidczyk A., Bezpieczeństwo wewnętrzne. Podręcznik akademicki, Toruń, 2017.
5. Drozdowski Z. (red.), Organizacja i metodyka badania wypadków lotniczych w lotnictwie państwowym i lotnictwie cywilnym. Wyd. ITWL, Warszawa, 2005.
6. Instrukcja badania wypadków i incydentów. Zasady i procedury. Opracowanie na podstawie publikacji ICAO Doc. 9962, wyd. 2017, PKBWL, Warszawa, 2017.
7. Klich E., Bezpieczeństwo lotów. Wyd. Instytutu Technologii Eksploatacji, Radom, 2011.
8. Milkiewicz A. (red.), Podstawy organizacji i metodyki badania wypadków lotniczych w lotnictwie cywilnym RP. Główny Inspektorat Lotnictwa Cywilnego, Zespołu Bezpieczeństwa Lotów, wyd. 3, Warszawa, 2001.
9. Podręcznik zarządzania bezpieczeństwem. ICAO, wyd. 2, 2009.

### Additional

1. Sienkiewicz-Małyjurek K., Niczyporuk Z. T., Bezpieczeństwo publiczne. Zarys problematyki. Wyd. Politechniki Śląskiej, Gliwice, 2011.
2. Jancelewicz B. (red.), Bezpieczeństwo i niezawodność w lotnictwie. Wyd. Adam Marszałek, Toruń, 2009.
3. Makarowski R., Smolicz T., Czynniki ludzkie w operacjach lotniczych. ADRIANA AVIATION, Kosowizna, 2012.



4. Rozporządzenie Parlamentu Europejskiego i Rady (UE) nr 376/2014 – 03.04.2014 r. (zgłaszanie i analiza zdarzeń).

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	30	1,5
Student's own work (literature studies, preparation for classes, preparation for tests,) <sup>1</sup>	45	1,5

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