



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Safety in transport

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### Course

Field of study

Safety Engineering

Area of study (specialization)

Safety and crisis management

Level of study

Second-cycle studies

Form of study

part-time

Year/Semester

2/3

Profile of study

general academic

Course offered in

polish

Requirements

elective

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### Number of hours

Lecture

10

Laboratory classes

0

Other (e.g. online)

0

Tutorials

10

Projects/seminars

10

### Number of credit points

3

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### Lecturers

Responsible for the course/lecturer:

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Responsible for the course/lecturer:

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### Prerequisites

The student has a basic knowledge of issues related to the transport and safety in transport. The student has the ability to acquire information from specified sources and is ready to actively search, systematize and present knowledge in the field of transport safety.



### Course objective

Systematising basic knowledge related to safety issues in transport. Showing the specifics of safety in transport, its condition, legal norms, activities of services and institutions responsible for safety in this area, as well as created procedures and applied actions to improve safety in transport. Developing skills to solve problems occurring during the preparation and implementation of tasks related to transport safety.

### Course-related learning outcomes

#### Knowledge

- knows the issues of risk analysis, threats and their effects related to the functioning of individual types of transport, and knows the issues of safety management systems in individual types of transport (P7S\_WG\_05),

#### Skills

- knows how to correctly select sources and information derived from them, making the assessment, critical analysis and synthesize of this information, formulate conclusions and comprehensively justify the opinion (P7S\_UW\_01),
- is able to see and formulate systemic and non-technical as well as socio-technical, organizational and economic aspects in engineering tasks (P7S\_UW\_03),
- can prepare a well documented development of problems in the field of transport safety management (P7S\_UK\_02),
- is able to identify changes in requirements, standards, regulations, technical progress and the reality of the labor market, and based on them determine the needs to supplement own and other knowledge (P7S\_UU\_01),

#### Social competences

- is aware of the recognition of cause-and-effect relationships in achieving the set goals and ranking the significance of alternative or competitive tasks (P7S\_KK\_01),
- is aware of the recognition of the importance of knowledge in solving problems in the field of safety engineering and continuous improvement (P7S\_KK\_02),
- is aware of responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly implemented tasks (P7S\_KR\_02).



### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired during the lecture is verified by one 45th-minute colloquium carried out during the 5th lecture. Test consists of 15 to 20 questions (test and / or open), variously scored. Passing threshold: 50% of points.

Skills acquired as part of the tutorials are verified on the basis of the current assessment of the tasks ordered and on the basis of the final test, consisting of 3-5 tasks, variously scored depending on their level of difficulty.

Skills acquired as part of the project classes are verified on the basis of the implementation of assigned partial tasks and during the implementation of the project, the subject of which is selected transport accident.

### Programme content

Lecture:

General characteristics of transport and its types. Road transport - legal regulations, statistics, organization and functioning of entities responsible for safety. Rail transport - legal regulations, statistics, organization and functioning of entities responsible for safety. Maritime and inland sailing transport - legal regulations, statistics, organization and functioning of entities responsible for safety. Air transport - legal regulations, statistics, organization and functioning of entities responsible for safety. Internal transport - legal regulations, statistics, organization and functioning of entities responsible for safety. Transport of dangerous goods. Aspects of transport safety in national security systems.

Tutorial:

Analysis of legal regulations and scope of competences of basic transport safety systems. Analysis of hazards in different types of transport. Risk estimation in particular types of transport. Rules of conduct in the event of adverse events occurring in individual types of transport and tasks of entities. Safety management systems in different types of transport. Methods for assessing preparedness for emergency situations. Transport of dangerous goods.

Project classes:

Analysis of a selected contemporary transport accident consisting of the preparation of factual data, conducting an analysis using, among others taxonomy of the causes of adverse events in a given mode of transport and presentation of the implementation of post-event safety recommendations and assessment of their effectiveness together with own suggestions for recommendations. .

### Teaching methods



Lecture: multimedia presentation, illustrated with examples on the board.

Tutorial: multimedia presentation, illustrated with examples given on a board, which are the basis for performing the tasks given by the lecturer. During classes, the classical problem method, case method and practice method are used.

Project classes: multimedia presentation, illustrated with examples given on a board, which are the basis for performing the tasks given by the lecturer. During classes, a practical method is used.

## Bibliography

### Basic

1. (collective work edited by R. Krystek) (2009), Integrated transport safety system, collective work, vol. I, WKŁ, Gdańsk University of Technology.
2. (collective work edited by R. Krystek) (2009), Integrated transport safety system, collective work, vol. II, WKŁ, Gdańsk University of Technology,
3. Gałusza M., Wojciechowska-Piskorska H., Uzarczyk A., (2011), OHS in transport - a guidebook, Publisher TARBONUS Sp. z o. o., Kraków-Tarnobrzeg.
4. Legal regulations regarding the issues discussed.

### Additional

1. Klich E. (2010), Flight safety in air transport, Institute of Sustainable Technologies, Radom.
2. Grzegorzczak K., Buchar R. : Dangerous goods. Transport in practice. ADR 2011-2013 ed. Net Poland. Warsaw 2011.

## Breakdown of average student's workload

	Hours	ECTS
Total workload	90	3,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for tutorials, preparation for tests, project preparation)) <sup>1</sup>	60	2,0

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