



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Organization of Rescue Systems

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### Course

Field of study

Safety Engineering

Area of study (specialization)

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

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### Number of hours

Lecture

Laboratory classes

Other (e.g. online)

15

Tutorials

Projects/seminars

### Number of credit points

3

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### Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Tomasz Ewertowski,

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Phone: 61 6653365

Responsible for the course/lecturer:

Faculty of Engineering Management

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### Prerequisites

The student has a basic knowledge of issues related to institutions operating within rescue systems and the role of rescue in safety. 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 rescue.



### Course objective

Systematising of basic knowledge related to the analysis of legal regulations and responsibilities of selected rescue systems. Consolidation of acquired knowledge by applying it to selected examples. Developing the skills of practical problem solving during preparation for emergencies and management of selected rescue systems..

### Course-related learning outcomes

#### Knowledge

1. A student knows the issues connected with safety and rescue systems, hazards and ways to minimize their results [P6S\_WG\_02],
2. A student-knows issues in the field of: state and local government structures and institutions creating rescue systems and relations among them, as well as hazards for which they minimize the consequences, estimating risk and accidents [P6S\_WG\_03],

#### Skills

1. A student- knows how to corectly select sources and information derived from them, making the assessment, critical analysis and synthesis of this information [P6S\_UW\_01],-
2. A student can design an object, system or process that meets the requirements of safety engineering using appropriate methods and techniques [P6S\_UW\_07]]
3. A student can present, using properly selected means, a problem within the framework of safety engineering [P6S\_UK\_01],
4. A student can plan and carry out experiments, including computer measurements and simulations, interpret obtained results and draw conclusions [P6S\_UO\_01]

#### Social competences

1. A student is aware of the need to recognize the importance of knowledge for effective problem solving in the field of safety engineering and ensuring the possibility of continuous improvement [P6S\_KK\_02],-
2. A student is aware of the understanding of non-technical aspects and effects of engineering activities, including its impact on the environment and the associated responsibility for the decisions [P6S\_KK\_03],
3. A student is aware of responsibility for own work and readiness to comply with the principles of team work and responsibility for jointly implemented tasks [P6S\_KR\_02].



## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

a) laboratory classes: current assessment (on a scale of 2 to 5) of the tasks assigned,

Summative rating:

a) laboratory classes: average of partial tasks; credit after passing at least 3.0,

## Programme content

Laboratory:

Extinguishing media and fire-fighting equipment. Building fire requirements. Fire zones and evacuation. Fire water supply and fire routes. Requirements for the rescue systems in an enterprise generating a hazard to the environment. Explosion hazard and explosive atmosphere. Preparation of elements of the Fire Safety Manual. Rules of triage at the scene of an accident. Developing analytical data for the rescue plan.

## Teaching methods

Laboratory: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises. During classes, the classic exercise, laboratory and project methods are used.

## Bibliography

Basic

1. Biniak-Pieróg M., Zamiar Z. (2013), Organization of Rescue Systems, Wtdawnictwo University of Life Sciences, Wrocław.
2. Legal regulations regarding the issues discussed.
3. Skoczylas J. (2011), Rescue Law, Lexis Nexis, Warsaw
4. Kępka P. (2015), Designing of security systems. Bel. Studio Sp. z o.o., Warsaw

Additional

1. Szymonik A. (2011), Organization and functioning of security systems. Security management, Publisher Difin, Warsaw.
2. Pabiś A. (2018), Process safety part 1, Cracow University of Technology Publishing House, Cracow.
3. Ewertowski T., Bienias M., Czerniak K., (2019), Preparation of an enterprise for emergency situations and their better communication, Informatyka Ekonomiczna - 2019, nr 3(53), s. 9-22
4. Ewertowski T., Kacprzycka M., Lewandowska M., (2019) Analiza oceny zagrożeń prowadzonych na potrzeby opracowania planu ratowniczego na podstawie wybranych przykładów: Bezpieczeństwo zdrowotne : postępy monitorowania i obrazowania stanu środowiska, red. Jerzy Konieczny, Leonard Dajerling - Poznań, Polska : Uniwersytet im. Adama Mickiewicza w Poznaniu, 2019 - s. 337-353



### Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	20	1,0
Student's own work (literature studies, preparation for tutorials, preparation for test) <sup>1</sup>	55	2,0

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