



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Organization and operating of rescue units

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

1/1

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

8

Laboratory classes

Tutorials

10

Projects/seminars

Other (e.g. online)

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Tomasz Ewertowski,

Responsible for the course/lecturer:

Mail to: tomasz.ewertowski@put.poznan.pl

Phone: 61 6653365

Faculty of Engineering Management

ul. J. Rychlewskiego 2, 60-965 Poznań

Prerequisites

The student has a basic knowledge of issues related to institutions and units 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 basic knowledge related to various organizations and rescue units that operate as a part of rescue systems. Presentation of the key structures, tasks and equipment of rescue entities as well as the principles of their operation and cooperation. Developing skills to solve problems occurring in preparation of rescue units for emergencies and management of selected rescue systems.

Course-related learning outcomes

Knowledge

1. A student knows the issues connected with safety, organization and operating of rescue system entities and methodology for minimizing hazards and their results [P7S_WG_02],
2. A student knows issues related to the area of rescue and safety [P7S_WG_03],
3. A student knows the issues of operating costs in the area of rescue and safety and related legal provisions [P7S_WG_04],

Skills

1. A student 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],
2. A student 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],
3. A student is able to make a critical analysis and assess - in conjunction with Safety Engineering, existing technical solutions, in particular machines, devices, objects, systems, processes and services [P7S_UW_06],

Social competences

1. A student 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],
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 [P7S_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) tutorials: current assessment (on a scale of 2 to 5) of the tasks assigned,
- b) lectures: -presence and activity on lectures (partial points).

Summative rating:

- a) tutorials: average of partial tasks; credit after passing at least 3.0,
- b) lectures: test carried out during the last lecture. Test consists of 15 to 20 questions (test and / or open), variously scored. Passing threshold: 55% of points; partial points may increase the final grade)..

Programme content

Lecture:

Rescue units included in the KSRG (technical, chemical, ecological and medical rescue). Fighting fires, technical accidents and natural disasters. Rules of conduct in the event of a rescue operation. Principles of cooperation and coordination of emergency services at the accident site. Levels of rescue action management. Decision making processes, geographic information systems. Rescue units included in the PRM (role and tasks of a paramedic, organization and functioning of Medical Rescue Teams and Helicopter Emergency Medical Service). Rescue units included in the Armed Forces (military engineering, chemical and ecological rescue, aviation search and rescue groups, military fire protection and Territorial Defense Forces). Selected specialistic rescue units (marine rescue - SAR, water rescue - WOPR, mountain rescue - GOPR, TOPR, mining rescue, cave rescue). Operation of selected public administration organizations, services as well as guard and inspection in the rescue system.

Tutorial:

Hazard analysis. Rules of conduct for rescue operations and tasks of individual entities. Methods for assessing preparedness for emergency situations. Cooperation between rescue units. Analysis of the place of incident and rules of triage. Directing and conducting rescue operations. Elements of fire protection. Protection of mass events. Requirements for the creation and operating of the rescue system in an enterprise generating a hazard to the environment.

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.



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. Kęпка 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	50	2,0
Classes requiring direct contact with the teacher	18	1,0
Student's own work (literature studies, preparation for tutorials, preparation for test) ¹	32	1,0

¹ delete or add other activities as appropriate