COURSE DESCRIPTION CARD - SYLLABUS

Course name
Basics of fire protection

Course

Field of study
Safety Engineering
Area of study (specialization)

Level of study
First-cycle studies
Form of study
part-time

Year/Semester
4/7
Profile of study
general academic
Course offered in
English
Requirements
compulsory

Number of hours

Lecture

Laboratory classes
8

Other (e.g. online)

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:
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Responsible for the course/lecturer:

Prerequisites

The student has basic knowledge of the issues related to the institutions operating within the rescue

systems and the role and tasks of fire protection in safety. The student has the ability to obtain information from the indicated sources and is ready to actively seek, systematize and present knowledge in the field of fire protection.

Course objective

Acquisition and systematization of basic knowledge related to the analysis of legal regulations and scopes of responsibility in fire protection Consolidating the learned knowledge by applying it to selected examples. Developing the skills of practical solving of problems occurring during the implementation of tasks related to fire protection.

Course-related learning outcomes

Knowledge

1. The student knows at an advanced level engineering issues (physics, chemistry, materials science, manufacturing technologies, material strength, mechanics) necessary in the organization of fire protection [K1_W01].

2. The student knows at an advanced level the issues of technical safety, safety systems, occupational health and safety as well as threats and their effects [K1_W02].

3. The student knows the fundamental dilemmas of modern civilization and trends in sustainable development as well as the best practices in the field of Safety Engineering, in ensuring the highest possible level of safety in plants that use hazardous substances in their operations [K1_W10].

Skills

1. The student is able to select properly sources and information derived from them, make the evaluation, critical analysis and synthesis of this information [K1_U01].

2. The student is able to see system and non-technical aspects in engineering tasks, as well as socio-technical, organizational and economic [K1_U03].

3. The student is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks, also with the use of information and communication methods and tools [K1_U04].

4. The student is able to prepare the necessary resources for work in an industrial environment and knows the safety rules related to this work and can enforce their use in practice [K1_U05].

5.The student is able to make a critical analysis of the operation of plants with high risk of industrial failure and assess, in connection with Safety Engineering, the existing technical solutions, in particular machines, devices, objects, systems, processes and services [K1_U06].

6. The student is able to apply standards and norms in solving practical engineering tasks in the field of Safety Engineering, in the context of the operation of plants with a high risk of industrial failure [K1_U08].

Social competences

1. The student is able to see the cause-and-effect relationships in the implementation of the set goals and use the ranks in relation to the significance of alternative or competitive tasks [K1_K01].

2. The student is aware of the importance of knowledge in solving problems in the field of Safety Engineering and continuous improvement [K1_K02].

3. The student is aware of the understanding of non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions [K1_K03].

4. The student is able to initiate activities related to the formulation and transfer of information and cooperation in the society in the area of Safety Engineering [K1_K05].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

laboratory classes: ongoing assessment (on a scale of 2 to 5) of the implemented tasks. Credit after passing at least 3.0. 1st and 2nd approach passing: 56% of the points available.

Summary assessment:

laboratory classes: average of grades for partial tasks; Credit after passing at least 3.0. 1st and 2nd approach passing: 56% of the points available.

Programme content

Laboratory classes:

Extinguishing media and fire-fighting equipment. Fire requirements of buildings. Fire zones and evacuation. Fire water supply and fire routes. Safety signs. Explosive hazard and explosive atmosphere. Preparation of elements of the Fire Safety Instruction. Development of analytical data for a rescue plan.

Teaching methods

Laboratory classes:

- multimedia presentation, case study. During the classes, the practice and design method is used.

Bibliography

Basic

1. Biniak-Pieróg M.,Zamiar Z. (2013), Organizacja Systemów Ratownictwa, Wydawnictwo Uniwersytetu Przyrodniczego, Wrocław.

2. Regulacje prawne dotyczace omawianych zagadnień.

3. Skoczylas J. (2011), Prawo ratownicze, Lexis Nexis, Warszawa.

4. Kępka P. (2015), Projektowanie systemów bezpieczeństwa. Bel. Studio Sp. z.o.o , Warszawa.

Additional

1. Szymonik A. (2011), Organizacja i funkcjonowanie systemów bezpieczeństwa. Zarządzanie bezpieczeństwem, Wydawnictwo Difin, Warszawa.

2. Pabiś A. (2018), Bezpieczeństwo procesowe cz.1, Wydawnictwo Politechniki Krakowskiej, Kraków.

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	8	0,5
Student's own work (literature studies, preparation for laboratories) [1]	42	1,5

[1] delete or add other activities as appropriate