COURSE DESCRIPTION CARD - SYLLABUS

Course name
Basics of fire protection [N1IBiJ1>POP]

Course

Field of study
Safety and Quality Engineering

Year/Semester
4/7

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
9

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

2,00

Coordinators

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Lecturers

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 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]
2. 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 the elements of fire protection, the existing technical solutions, in particular machines, devices, objects, systems, processes and services. [K1_U06]
3. 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 understanding of non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions. [K1_K03]
3. The student is able to initiate activities related to the formulation and transfer of information and cooperation in the society in the area of fire safety assurance. [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

The program includes the characteristics of extinguishing agents, fire-fighting devices and fire requirements for buildings.

Course topics

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	2,00
Classes requiring direct contact with the teacher	9	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	41	1,50