COURSE DESCRIPTION CARD - SYLLABUS

Course name
Workplace Health and Safety [S1IFar1>BHP]

Course

Field of study
Pharmaceutical Engineering

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
4

Laboratory classes
0

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

0,00

Coordinators

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Lecturers

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Prerequisites

The student has the knowledge gained in secondary school of the basic hazards to human health and life. Understands the need to apply the acquired knowledge throughout the study process and is able to take responsible action in an emergency. Understands the need to study.

Course objective

To familiarize students with the safety work and fire protection regulations, being in operation at the Poznań University of Technology. In particular, to familiarize students with the basic principles of safety work in a chemical laboratory, the emergency situations that may occur in chemical laboratories and the risks associated with exposure to chemical substances.

Course-related learning outcomes

Knowledge:
1. knows the basic principles of occupational health and safety in the education of a chemist, in particular the principles of safe work in a chemical laboratory and work with chemical substances. [k_w26, k_w27,]
2. has knowledge of the risks associated with the implementation of basic chemical processes. he

knows the principles of risk assessment, knows polish, international and eu directives on occupational safety in the laboratory. [k_w26]
3. he knows the basic principles of action in case of fire and first aid. [k_w26]
2. understands the need for training [k_k1].
3. is aware of the impact of following the safe work rules on the safety of himself and others [k_k5, k_k4].

Skills:
1. has the ability to assess and prevent hazards in the laboratory. he knows the rules of occupational health and safety [k_u1, k_u21].
2. has the ability to act and behave appropriately in the event of an emergency and in hazardous situations related to the performed work [k_u22].
3. applies basic regulations and adheres to health and safety rules related to the work performed, and implements appropriate waste management [k_u22, k_u25].
4. has the ability to use safety data sheets for chemical substances and correctly recognizes pictograms, which he can assign appropriate meaning [k_u22].

Social competences:
1. is aware of the importance and understands the social aspects of practical application of the acquired

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Passing the course based on the results of the final test (carried out in a stationary or remote mode (e-Kursy platform), depending on the situation). Passing threshold: 55% of points.

Programme content

The work safety course includes presentation and discussion of:
(1) BASIC PRINCIPLES: The four principles of safety; Basic safety rules; Issues related to green chemistry; Laws and regulations pertaining to safety.
(2) EMERGENCY RESPONSES: Fire emergencies; Chemical spills; Indoor exposure to radon and health risk
associated with radon exposure; Lab-related emergencies; First aid in chemistry laboratories.
(3) UNDERSTANDING LABORATORY HAZARDS: Routes of exposures to hazards; The language of safety
(signs, symbols, and labels); Finding hazard information: safety data sheets (SDS); The globally harmonized system of classification and labelling of chemicals (GHS).
(4) INTRODUCTION TO THE LABORATORY: Laboratory attire; Personal habits; Personal protective equipment (PPE); Common laboratory operations; Chemical management: storage and waste; Covid-19 related regulations; Basic guidelines for safety work.

Teaching methods

Lecture: multimedia presentation, discussion.

Bibliography

Basic
1. M. Wasilewski, W. Dawydow, Bezpieczeństwo w pracowni chemicznej, WNT, Warszawa 2008.
2. P. Kowalski, Laboratorium chemii organicznej. Techniki pracy i przepisy BHP, WNT, Warszawa 2008.
3. H. Wojciechowska-Piskorska, Bezpieczeństwo i higiena pracy w laboratoriach chemicznych. Laboratoria: naukowo-badawcze, doświadczalne dla przemysłu, kontrolno-ruchowe, produkcyjne. ODDK, 2013.
Additional
1. R. H. Hill, Jr. and D C. Finster, Laboratory Safety for Chemistry Students, John Wiley & Sons, Inc., 2010.

Breakdown of average student's workload

	Hours	ECTS
Total workload	4	0,00
Classes requiring direct contact with the teacher	4	0,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	0	0,00