COURSE DESCRIPTION CARD - SYLLABUS

Course name
Workplace Health and Safety [S2IChiP1>BHP]

Course

Field of study
Chemical and Process Engineering

Year/Semester
1/1

Area of study (specialization)
Chemical Engineering

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
4

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

0,00

Coordinators

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Lecturers

Prerequisites

Student should know the theoretical basis of occupational safety and health. Student should be able to pursue self-directed learning. Student should understand the need for further self-learning of others (students).

Course objective

To acquaint students with the basic principles of work in a chemical laboratory, practical ability of conducting an experiment in a safe way and working in a lab and getting acquainted with basis of substance management and prevention of chemical risks.

Course-related learning outcomes

Knowledge:
1. knows the basic rules of safe and hygienic work in the process of educating a chemist (rules of safe work in a chemical laboratory, working with chemical substances). [k_w3, k_w8]
2. knows the basic principles of providing first aid and the rules of conduct in case of fire [k_w11]
3. is aware of the dangers that may occur during practical classes in chemical laboratories, can correctly identify the dangers [k_w3, k_w11]

2. is aware of the impact and importance of complying with the principles of safe and hygienic work on their own and others" safety [k_k2, k_k3]

Skills:
1. has the ability to assess threats, prevent them [k_u1, k_u11]
2. has the ability to act and behave appropriately in the event of an emergency [k_u11]
3. has the skills necessary to work in the laboratory in terms of health and safety rules [k_u09, k_u11]
4. has the ability to use safety data sheets of hazardous substances [k_u11]
5. correctly recognizes pictograms, which can be assigned the appropriate meaning [k_u11]
6. can provide first aid [k_u11]

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

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:
Stationary lecture: pass on the basis of the presence on lecture and graded a test to check the knowledge (pass from 51% correct answers).
If it is necessary to conduct a lecture in on line form - pass on the basis of the presence on on line lecture and graded a test to check the knowledge via the e-courses platform (credit from 55% of correct answers).

Programme content

Occupational health and safety issues.

Course topics

The cycle of the OSH includes:
1. Basic principles of health and safety at work in laboratory
2. Related to exposure to chemical substances - identification and classification of hazards, familiarization with the construction and information contained in the Safety Data Sheets (in particular phrases of H and safety risk P),
3. Discussing the correct labeling of the packaging of a dangerous substance and dangerous preparation
4. Presentation of ways to reduce hazards, procedures for dealing with hazards in a student lab (spills, oral or respiratory intoxication, chemical burns, fire, etc.); Indoor exposure to radon and health risk associated with radon exposure;
5. Presentation of laboratory equipment with individual and collective protection measures
6. Discussion of proceedings in the event of an accident, breakdown or fire (first premedical aid, escape routes).

Teaching methods

lecture: multimedia presentation and discussion of examples

Bibliography

Basic
1. R. Kowal, Bezpieczeństwo i higiena pracy przy stosowaniu substancji i preparatów chemicznych, Ośrodek Szkolenia PIP, Wrocław 2006.
2. P. Kowalski, Laboratorium chemii organicznej, techniki pracy i przepisy bhp, WNT, Warszawa 2008.
3. M. Wasilewski, W. Dawydow, Bezpieczeństwo w pracowni chemicznej, WNT, Warszawa 2009.
4. G. Gałuszka, Pierwsza pomoc w nagłych wypadkach, Tarbonus, Kraków-Tarnobrzeg 2009.
5. Aktualne akty prawne obejmujące zagadnienia związane z bhp i czynnikami chemicznymi w miejscu pracy
6. J.A. Young Ed., Safety in Academic Laboratories, Am, Chem. Soc., Washington DC, 2003
Additional
Miesięczniki „Bezpieczeństwo pracy”, „Atest”

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