



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

BHP - Workplace Health and Safety (WHS)

		Course
Field of study	Chemical and Process Engineering	Year/Semester 1/1
Area of study (specialization)	-	Profile of study general academic
Level of study	First-cycle studies	Course offered in Polish
Form of study	full-time	Requirements compulsory

			Number
<b>of hours</b>			
Lecture	Laboratory classes	Other (e.g. online)	
4	0	0	
Tutorials	Projects/seminars		
0	0		
<b>Number of credit points</b>			
0			

		Lecturers
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### 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\_W18, K\_W18]
2. Knows the basic principles of providing first aid and the rules of conduct in case of fire [K\_W18]
3. Is aware of the dangers that may occur during practical classes in chemical laboratories, can correctly identify the dangers [K\_W18]

#### 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, K\_U12]
3. Has the skills necessary to work in the laboratory in terms of health and safety [K\_U12]
4. Has the ability to use safety data sheets of hazardous substances [K\_U12]
5. Correctly recognizes pictograms, which can assign the appropriate meaning [K\_U12]
6. Can provide first aid [K\_U12]

#### Social competences

1. Has awareness and understanding of social aspects of the practical application of the acquired knowledge and the related responsibility [K\_K3]
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\_K6]

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

An assessment of the course: on the basis of attendance and completion of a test (10-15 questions), in a stationary form or on-line the e-kursy platform. Pass level is above 50%.

### Programme content

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.);



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

Additional

Miesięczniki „Bezpieczeństwo pracy”, „Atest”

### Breakdown of average student's workload

	Hours	ECTS
Total workload	4	0,0
Classes requiring direct contact with the teacher	4	0,0
Student's own work (literature studies, preparation for test) <sup>1</sup>	0	0,0

<sup>1</sup> delete or add other activities as appropriate