



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Work hygiene [N2IBez1>HP]

Course

Field of study

Safety Engineering

Year/Semester

1/2

Area of study (specialization)

Ergonomics and Work Safety

Profile of study

general academic

Level of study

second-cycle

Course offered in

polish

Form of study

part-time

Requirements

elective

Number of hours

Lecture

10

Laboratory classes

0

Other (e.g. online)

0

Tutorials

10

Projects/seminars

0

Number of credit points

3,00

Coordinators

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Lecturers

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Prerequisites

The student has basic knowledge of ergonomics, ecology and occupational safety. The student is able to interpret the relationships occurring in the human-technical object system, as well as organize work taking into account the reduction of physical and mental loads for the human body. The student understands the legitimacy of occupational hygiene in connection with safety engineering.

Course objective

To acquaint the student with theoretical and practical problems related to the impact of work on human psychophysical well-being, which in turn should enable the acquisition of skills to control the degree of nuisance / harmfulness of working conditions and strive to minimize risk factors in this regard.

Course-related learning outcomes

Knowledge:

1. the student knows the issues of ergonomics and occupational safety, including preventive measures in the field of occupational health [p7s_wg_03]
2. the student knows the concepts related to human and the world of values and the role of man in ensuring reliability in the human-technical object system [p7s_wk_04]

Skills:

1. the student is able to prepare the necessary resources to work in an industrial environment and knows the safety rules associated with this work and is able to enforce their use in practice, taking into account the requirements of occupational hygiene [p7s_uw_05]
2. the student is able to present, using properly selected means, current problems of occupational hygiene, embedding them in the theoretical assumptions of safety and crisis management [p7s_uk_01]
3. student is able to plan and conduct research using various methods (including measurements and simulations), performing a prognostic function in relation to the protection of working health [p7s_uo_01]
4. student is able to identify changes in requirements, standards, regulations, technical progress and reality of the labor market, and on their basis determine the need to supplement knowledge in the context of planning and implementing health plans at the workplace [p7s_uu_01]

Social competences:

1. the student is aware of the recognition of cause and effect relationships in the implementation of the set goals and organizational tasks, taking into account the importance of issues related to the protection of employees' health [p7s_kk_01]
2. the student is aware of the responsibility for own work and readiness to comply with the principles of teamwork and taking responsibility for jointly implemented tasks in the field of occupational hygiene and health protection at work [p7s_kr_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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forming assessment:

Lecture: knowledge is verified by short colloquia conducted after the second and fourth teaching unit, including a short test and problem tasks. The pass mark is 50%+1.

Exercises: skills and social competences are verified through partial grades, resulting from work performed in teams, the bonus of activity and solving the problem independently. Credit threshold: 50%+1.

summative rating:

Lecture: knowledge is verified by an oral exam on the basic concepts, related to the psychophysical functioning of humans and problems of contemporary occupational hygiene. The pass mark is 50%+1.

Exercises: the average of partial grades and the grade of the plan prepared by the students to improve working conditions in a selected enterprise. Pass mark: 50%+1.

Programme content

Lecture: Basic concepts. Hygiene and occupational hygiene - scope of activities, methodology, goals. The relationship between occupational hygiene and occupational safety and ergonomics. Harmful and harmful factors. Human tolerance limits, hygienic assessment of working conditions. Legal regulations regarding the protection of occupational health. Standards related to determining acceptable changes in the work environment (regarding chemical substances and mixtures, carcinogens, harmful biological agents, microclimate). Psychophysiological aspects of work organization, with particular emphasis on shift work and overtime. Fatigue curve. Technical and organizational rules for shaping employee well-being conditions (sanitary and hygienic rooms, workplace environment). The organization of the work of women, the elderly, and adolescents. Work hygiene of the student. Growing problems of static loads and mental fatigue. Hygiene of leisure and free time. Nutrition hygiene. Occupational diseases and work-related illnesses. Preventive medicine, health-related activities in the work environment. Health security culture.

Exercises: LaLonde fields. Management of occupational disease. Current hygienic diseases. Prevention of diseases resulting from the way of performing work, Mental hygiene of employees.

Teaching methods

Lecture: multimedia presentation illustrated with examples, informative lecture, seminar lecture.

Exercises: multimedia presentation illustrated with examples, practical exercises, talk, exposing methods (film, show), panel discussion, simulating expert debates, case study, brainstorming.

Bibliography

Basic

1. Sadłowska-Wrzesińska J., Lewicki L., Podstawy bezpieczeństwa i zdrowia w pracy, Wydawnictwo WSL, Poznań, 2018.
2. Wejman M., Higiena pracy, Wyd. Politechniki Poznańskiej, Poznań, 2012.
3. Sadłowska-Wrzesińska J., Lewicki L., Istotne aspekty BHP, Wydawnictwo WSL, Poznań, 2014.
4. Horst W.M., Wprowadzenie do diagnozowania sposobu wykonywania pracy. Wybrane zagadnienia fizjologii, biomechaniki i antropometrii, Wyd. Politechniki Poznańskiej, 2012.

Additional

1. Sadłowska-Wrzesińska J., Kultura bezpieczeństwa pracy. Rozwój w warunkach cywilizacyjnego przesilenia, Aspra, Warszawa, 2018.
2. Nejman Ż., Brenk M., Wnuk S., Jakość życia a miernik odpowiedzialności spółek giełdowych, Katedra Zarządzania Politechniki Łódzkiej, 2015.
3. Normy i akty prawne.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	20	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	55	2,00