COURSE DESCRIPTION CARD - SYLLABUS

Course name
Occupational risk and methods of its assessment [S1ZiIP2>RZiMJO]

Course

Field of study
Management and Production Engineering

Year/Semester
3/5

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
elective

Number of hours

Lecture
15

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

1,00

Coordinators

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Lecturers

Prerequisites

Basic knowledge of the basics of machine construction, manufacturing technology and material processing. Logical thinking, analysis of occurring phenomena, use of knowledge obtained from scientific, technical and popular science literature. Understanding the need to learn and acquire new knowledge. The student should be aware of the occurrence of risks at work stations and be able to identify them. The student should be able to use the legal regulations in the field of occupational health and safety.

Course objective

The aim of the subject is to familiarize students with issues related to occupational risk at work stations related to manufacturing technologies, in particular the organization of work stations, human workload and the work environment during the production of products using waste-free technologies. Additionally, the subject aims to familiarize students with occupational risk during the operation of machines in waste-free technologies

Course-related learning outcomes

Knowledge:
1. Student knows the issues related to occupational risk, including the causes of accidents in the

workplace and methods of preventing them.
2. Student knows the risks occurring during the production of products using waste-free technologies, including the operation of machines.
3. Student has basic knowledge of the operation of machines using waste-free technologies.

Skills:
1. Student is able to identify technical problems and risks at the workplace in the scope of waste-free forming processes and operation of machines and equipment.
2. Student is able to organize workstations that enable the forming of products in specific conditions with minimization of occupational risk.
3. Student is able to identify risks and assess occupational risk at the workplace in waste-free manufacturing technologies.
4. Student is able to assess the risk of factors occurring in the work environment affecting the employee and assess the suitability of methods used for risk assessment. Is able to use the legal provisions in the scope of occupational health and safety to minimize risk during the organization of workstations.

Social competences:
1. Student is able to convey information about occupational risk and methods of its assessment in a generally understandable manner.
2. Student is able to determine the technical and non-technical conditions related to minimizing risk at the workplace.
3. Student is able to think and act in an entrepreneurial manner.
4. Student understands the need for continuous education.
5. Student is able to cooperate and work in a group, assuming different roles in it.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:
Written assessment conducted at the end of the semester (passing if at least 50.1% of correct answers are obtained). Assignment of grades to percentage ranges of results: <90-100> very good; <80-90) good plus; <70-80) good; <60-70) satisfactory plus; <50-60) satisfactory; <0-50) unsatisfactory.

Programme content

Basics of occupational health and safety, the purpose and tasks of occupational health and safety services in the area of risk assessment at work stations. Directions of action and areas of specialization of occupational health and safety services. Risk factors and workload. Diagnosis of risk at the work station. Work environment burden. Assessment of occupational risk. Supervision and control of risk at work.

Course topics

What is occupational risk? Examples. What is the purpose of an occupational risk assessment? What are the legal bases for an occupational risk assessment? When should an occupational risk assessment be performed? How often should an occupational risk assessment be performed? Who can and should perform an occupational risk assessment? How to proceed with an occupational risk assessment? What information is necessary for an occupational risk assessment? Job description. Information necessary for an occupational risk assessment.

Teaching methods

Lecture: multimedia presentation illustrated with examples given on the board, solving tasks, preparing occupational risk assessment cards for selected positions.

Bibliography

Basic:
1. Ocena ryzyka zawodowego (Tarbonus), Romanowska-Słomka I., Słomka A., 2023.
2. Ocena ryzyka zawodowego (Wiedza i Praktyka), Autor: praca zbiorowa, 2022, ISBN: 978-83-8276-368-
3. Metody oceny ryzyka zawodowego, Górska E., Oficyna Wydawnicza Politechnika Warszawska, 2012.

Additional:
1. Instruction on occupational risk assessment at the workplace - description of the method - examples, Rączkowski B, Karczewski J. T., 2008, ISBN: 978-83-7426-530-0.
2. Główczyńska – Woelke K., Occupational risk assessment, 2009.
3. Regulation of the Minister of Labor and Social Policy of 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment (Journal of Laws of 2014, item 817).
4. Occupational diseases, Marek K., Medical Publishing House PZWL, Warsaw, 2003.

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	10	0,50