# POZNAN UNIVERSITY OF TECHNOLOGY



EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

# **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Identification and assessment of risks at the workplace [N1ZiIP2>IiOZ]

Course				
Field of study Management and Production Engineering		Year/Semester 3/6		
Area of study (specialization) –		Profile of study general academic	с	
Level of study first-cycle		Course offered in Polish	1	
Form of study part-time		Requirements elective		
Number of hours				
Lecture 8	Laboratory classe 0	es	Other 0	
Tutorials 0	Projects/seminars 0	6		
Number of credit points 1,00				
Coordinators		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 hazards 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 course is to familiarize students with issues related to the identification and assessment of risks at the workplace related to manufacturing technologies, in particular the organization of workplaces, human workload and the work environment during the production of products using waste- free technologies. Additionally, the course aims to familiarize students with the identification of risks at the workplace during the operation of machines in waste-free technologies.

# Course-related learning outcomes

Knowledge:

1. Student knows the issues related to the identification and assessment of risks at the workplace,

including the causes of accidents at work 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, taking into account risks at the workplace.

3. Student is able to identify risks 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 regulations in the field of occupational health and safety to identify and assess risks at the workplace.

Social competences:

1. The student is able to convey information about risks at the workplace in a generally understandable manner.

2. The student is able to determine the technical and non-technical conditions related to the identification and assessment of risks at the workplace.

3. The student is able to think and act in an entrepreneurial manner.

4. The student understands the need for continuous education.

5. The 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 identification and assessment of risks at the workplace. Directions of action and areas of specialization of occupational health and safety services. Risk factors and workload. Diagnosis of risk at the workplace. Work environment burden. Identification and assessment of risks at the workplace. Supervision and control of risk at work.

# **Course topics**

What is a workplace risk? Examples. What is the purpose of a workplace risk assessment? What is the legal basis for identifying and assessing workplace hazards? When should a workplace risk assessment be performed? How often should a workplace risk assessment be performed? Who can and should identify and assess workplace risks? How should a workplace hazard assessment be performed? What information is necessary to assess workplace risks? Job description. Information necessary to identify and assess workplace risks.

# **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. Instruktaż oceny ryzyka zawodowego na stanowisku pracy - opis metody - przykłady, Rączkowski B,

Karczewski J. T., 2008, ISBN: 978-83-7426-530-0.

2. Główczyńska – Woelke K., Ocena ryzyka zawodowego, 2009.

3. Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 6.06.2014 r. w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy (Dz. U. z 2014 r. poz. 817).

4. Choroby zawodowe, Marek K., Wydawnictwo Lekarskie PZWL , Warszawa, 2003.

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	8	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	17	0,50