COURSE DESCRIPTION CARD - SYLLABUS

Course name
Basics of environmental management [S1IBiJ1>PZS]

Course

Field of study
Safety and Quality Engineering

Year/Semester
1/2

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
15

Projects/seminars
0

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

The student knows and understands the basic concepts of natural sciences, especially human and environmental sciences (at the high school level). The student is able to interpret the phenomena occurring in the natural and work environment and their influence on the functioning of the human body. Uses the known methods of researching phenomena and relations, and applies logical thinking to associate and evaluate them.

Course objective

Acquainting with the concept of environmental management and its scope, as well as legal requirements regarding knowledge in the field of ecological sciences and macroergonomics. Initial preparation for him to make decisions causing environmental effects and changes in working conditions. The acquired knowledge, skills and competences will allow him to initially recognize problems in the field of adjusting work to the proper functioning of the human body and the requirements related to shaping a good quality of life, depending on the natural environment.

Course-related learning outcomes

Knowledge:

1. Defines the environment and its elements and explains the relationship between humans and the natural environment, emphasizing the importance of sustainable development [K1_W05].
2. Describes the concept of an environmental management system, indicating its objectives in an organization as well as the environmental aspects and impacts of economic activities [K1_W05].

Skills:
1. Utilizes computer simulations, such as carbon footprint calculators, to assess the impact of human activity on the environment [K1_U01].
2. Analyzes and integrates information from various sources on environmental management, making a critical assessment of their reliability and usefulness [K1_U01].
3. Recognizes systemic, socio-technical, organizational, and economic aspects of environmental management in engineering tasks [K1_U03].
4. Plans, organizes, and manages individual and team work in projects related to environmental management, ensuring high quality of results [K1_U11].

Social competences:
1. Develops professionalism and ethical conduct, promoting respect for diversity and building a culture of sustainable development and environmental responsibility [K1_K06].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:
assessment of performed exercises and tasks to be performed on one's own (60% of the final grade), assessment of the written test (40% of the final grade).
Passing on the first and second attempt min. 50% of all points.

Programme content

The topics of the classes include an introduction to the issues of environmental management in organizations.

Course topics

Content realized during classes:
the environment and its elements; relations between man and the natural environment; computer simulation - carbon footprint calculator; the concept of the system with particular emphasis on the environmental management system; the purpose of environmental management in the organization; environmental aspects and effects.

Teaching methods

Classes: subject exercises in connection with the analysis of case studies and elements of the problem lecture.

Bibliography

Basic:
1. Jabłoński J., Wybrane problemy zarządzania środowiskowego, Wydawnictwo Politechniki Poznańskiej, Poznań, 1999.
2.Act of 27 April 2001, Environmental Protection Law, Journal of Laws, No. 62, item 627
3. Szopik-Depczyńska K., Misztal A., Wojtaszek H., Innowacyjna gospodarka - zrównoważony rozwój, ekoinnowacje i obszary wsparcia systemowego, wyd. Naukowe Sophia, 2018.

Additional:
1. Mateja B., Ekologia. Wybrane zagadnienia, Wydawnictwo Politechniki Poznańskiej, Poznań, 2011.
2. Tytyk E., Projektowanie ergonomiczne, Wydawnictwo Naukowe PWN, Poznań, 2001.
3. Dahlke G., Drzewiecka M., Stasiuk-Piekarska A.K., Pozasłuchowy wpływ elektrowni wiatrowych na człowieka [w:] Logistyka 5/2014, s. 290-300.
4. Stasiuk-Piekarska A., Drzewiecka M., Dahlke G., Influence of macroergonomic factors on production systems organizing in automotive industry [w:] Vink P. [red.], Advances in Social and Organizational

Factors, ISBN 978-1-4951-2102-9, str. 194-205.
5. Piaskowski M., Stasiuk A., Application of eco-balance in area of logistics - a case study, [w:] Golińska P., Fertsch M., Marx-Gómez J., Information Technologies in Environmental Engineering, Berlin 2011 (ISBN 978-3-642-19536-5).
6. Stasiuk-Piekarska A., Włodarczyk A., Innovation in the pursuit of sustainable manufacturing, Proceedings of the 36th International Business Information Management Association (IBIMA), ISBN: 978-0-9998551-5-7, 4-5 November 2020, Granada, Spain., s. 7363-7370.
7. Normative and legal acts specified during the classes.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
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)	35	1,50