COURSE DESCRIPTION CARD - SYLLABUS

Course name
Basics of environmental management

Course

Field of study
Safety Engineering
Area of study (specialization)

Level of study
First-cycle studies
Form of study
part-time

Year/Semester
1/2
Profile of study
general academic
Course offered in
English
Requirements
compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

Tutorials
10

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:
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Responsible for the course/lecturer:

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. The student has advenced knowledge of ergonomics, human ecology and environmental protection. [K1_W05]

2. The student has advanced knowledge of the life cycle of products, devices, facilities, systems and technical systems.[K1_W06]

3. The student has advanced knowledge of quality engineering in relation to products and processes. [K1_W07]

Skills

1. The student is able to properly select the sources and information derived from them, making the evaluation, critical analysis and synthesis of this information.[K1_U01]

2. The student is able to see system and non-technical aspects, as well as socio-technical, organizational and economic aspects in engineering tasks. [K1_U03]

3. The student is able to use analytical, simulation and experimental methods to formulate and solve engineering tasks, also with the use of information and communication methods and tools.[K1_U04]

4. The student is able to plan, organize and implement individual and team work and carry out experiments, including measurements and computer simulations, interpret the obtained results and draw conclusions. [K1_U11]

Social competences

1. The student is aware of behaving in a professional manner, observing the principles of professional ethics and respecting the diversity of views and cultures. [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

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	45	2,0
Classes requiring direct contact with the teacher	10	1,0
Student's own work (literature studies, preparation for tutorials, preparation for tests) [1]	35	1,0

[1] delete or add other activities as appropriate