SYLLABUS

Name:	Ecology of natural resources and environmental protection
Name in Polish:	Ekologia zasobów naturalnych i ochrona środowiska
Name in English:	Ecology of natural resources and environmental protection
	Information on course:
Course offered by department:	Faculty of Organisation and Management
Course for department:	Silesian University of Technology
Study level and form:	Bachelor's degree, Full-time
Term:	winter semester 2023/2024
Coordinator of course edition:	dr hab. inż. Jan Skowronek

Default type of course examination report:

pass

Language: English Course homepage: https://platforma.polsl.pl/roz/ ECTS

4

Short description:

The aim of the subject is to provide structured knowledge about the natural environment, natural resources, and rational principles of the management of these resources, as well as basic legal acts regulating the principles and methods of using the environment and its resources.

The program content includes the following topics: Ecology vs sozology. Natural resources. Raw materials. Basic legal acts in fields of environmental protection and resource management. Natural and technical hazards. Fundamentals of environmental engineering.

Description:

Lecture - 30 hours:

- 1. Ecology and sozology
- 2. Earth's natural resources
- 3. Mineral raw materials impact on the environment of their exploitation and use
- 4. Legislation on environmental protection
- 5. Legislation in the field of natural resources management

Exercises - 15 hours:

- 1. Principles of resource and raw materials management
- 2. Repairing environmental damage
- 3. Circular economy
- 4. Natural and anthropogenic threats
- 5. Ecological disasters

Project - 15 hours:

The student will prepare a presentation on a selected topic in the field of environmental protection, prevention or repair of environmental damage, legal requirements for a specific issue.

Bibliography:

Bhargava R. N., Rajaram V., Olson K., Tiede L.: Ecology and Environment. CRC Press, 2019. Reid D.: Sustainable Development. An Introductory Guide. Routledge, 1995.

Benton D., Hazell J., Hill J.: The Guide to the Circular Economy. Capturing Value and Managing Material Risk. Routledge, 2015.

Wong M. H.: Remediation and Management of Degraded Lands. CRC Press, 1999. Misiołek A., Kowal E., Bień J.: Ekologia. PWE Gajdzik B., Wyciślik A.: Jakość, środowisko i bezpieczeństwo pracy w zarządzaniu przedsiębiorstwem. Wyd. Pol. Śląskiej Kania A., Nowosielski R., Spilka M.: Zarządzanie środowiskowe i systemy zarządzania środowiskowego. Wyd. Pol. Śląskiej Dobrzańska B., Dobrzański G., Kiełczewski D.: Ochrona środowiska przyrodniczego. PWN Lipińska D: Podstawy inżynierii środowiska. Wyd. Un. Łódzkiego Krystek J. (red.): Ochrona środowiska dla inżynierów. PWN Learning outcomes: Knowledge: knows and understands basic processes in the life cycle of technical devices, objects and systems (K1A W14) principles, concepts and methods of logistics, quality management, environmental protection and management, ergonomics and occupational safety (K1A W17) Skills: is able to: take into account aspects of logistics, guality management, environmental protection and management, and ergonomics and occupational safety in the industrial environment and the environment of production systems (K1A_U10) take part in a debate - to present, justify and evaluate different opinions and positions and discuss them (K1A_U16) Social competence: is ready for: recognition of the importance of knowledge in solving cognitive and practical problems; consulting experts in the event of difficulties in solving the problem on his/her own (K1A K02) Assessment methods and assessment criteria: The course is passed on the basis of: prepared and delivered presentation on a selected topic student activity during classes Practical placement: Not applicable