



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Economics of Sustainable Development [S1IZarz1E>EZR]

Course

Field of study

Engineering Management

Year/Semester

4/7

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

English

Form of study

full-time

Requirements

elective

Number of hours

Lecture

15

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

0

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

The student has basic theoretical knowledge of microeconomics, knows the basic laws and principles of economics as well as the basics of resource management and accounting. Is able to apply cost accounting in business operations and characterize the assumptions of environmental protection and resources. Demonstrates readiness to develop his knowledge and teamwork skills. Is aware of socio- economic processes and phenomena.

Course objective

The aim of the course is to gain knowledge and acquire skills and competences in the field of: basic assumptions of the economics of sustainable development, including interdisciplinary knowledge; the goals of a sustainable development of the economy; strategic areas of sustainable development; human values in the concept of contemporary economic development; activities of organizations and world economies for sustainable development.

Course-related learning outcomes

Knowledge:

The student describes the key theses of sustainable development economics and the principles of

sustainable development ethics, relating them to different management models and economic theories [P6S_WG_01].

The student classifies and compares various strategies and economic policies in the context of sustainable development, considering their impact on various social and environmental aspects [P6S_WG_03].

The student identifies research methods and tools for modeling economic and social processes used in the context of sustainable development [P6S_WG_10].

The student explains the limitations of economic growth and their impact on the goals of the sustainable development economy [P6S_WG_11].

Skills:

The student demonstrates the ability to analyze the impact of economic growth limitations on the goals of sustainable development, using appropriate research methods and data analysis [P6S_UW_01].

The student critically evaluates the concepts of homo oeconomicus and homo cooperativus in the context of sustainable development [P6S_UW_06].

The student prepares case analyses related to sustainable development strategies in various economic sectors, considering their economic, social, and environmental effects [P6S_UW_07].

Social competences:

The student plans and implements educational and research activities related to sustainable development, guided by professionalism and professional ethics [P6S_KK_01].

The student critically evaluates various sustainable development strategies, considering their potential impact on cultural and social diversity [P6S_KR_02].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Knowledge acquired during the lecture is verified by one 60-minute colloquium carried out at the last lecture. It consists of 25-30 questions (test and open) with various points depending on their level of difficulty. Passing from: 60% of points. Issues and materials, on the basis of which questions are prepared for the colloquium, will be sent to students by e-mail using the university's e-mail system and uploaded on Moodle course. The final grade can be raised for the student's active participation in the problem and conversation lecture.

Knowledge, skills and social competences acquired as part of tutorials are verified based on the presentation of the completed project/assignment carried out independently and in a team, the developed case study and student activity during classes (participation in the discussion, independent problem solving). Criteria for evaluation of the project / assignment will be provided to students in the first class.

Programme content

The program includes: the basic assumptions of sustainable development economics, including the goals and strategic areas of sustainable development, as well as tools for measuring and reporting progress in the implementation process.

Course topics

Lecture: Sustainable development: conceptualization, assumptions, goals, and problem areas. Subject of interest in the economics of sustainable development. Differences between the traditional approach to economic growth and development with regard to the classical economics and the economics of sustainable development. Limits of economic growth. Is permanent growth real? Goals of the economics of sustainable development: economy, society, ecology. Key theses of the economics of sustainable development and the principles of ethics of sustainable development. The European Sustainable Development Strategy - assumptions, goals, implementation process.

Tutorials: Characteristics of selected strategic areas of sustainable development on the example of sustainable economic and energy policy, mobility policy and product development policy. Criticism of the concept of homo oeconomicus in favor of homo cooperativus. Limitation of excessive consumerism as one of the conditions for sustainable development.

Teaching methods

Lecture: multimedia presentation illustrated with examples; problem lecture (discussion on solving a given problem), conversation lecture (discussion moderated by the lecturer).

Tutorials: case study method, discussion methods: brainstorming, metaplan (conclusions from discussion in teams presented on the forum in the form of a poster, multimedia presentation); Exercise and practical methods: solving cognitive tasks, teamwork.

Bibliography

Basic:

1. Rogall H., *Ekonomia zrównoważonego rozwoju*, Zysk i Ska, Warszawa 2010.
2. Poskrobko B. (red.), *Teoretyczne aspekty ekonomii zrównoważonego rozwoju*, Wyższa Szkoła Ekonomiczna, Białystok 2011.
3. Poskrobko B., *Od ekorozwoju do ekonomii zrównoważonego rozwoju*, *Ekonomia i Środowisko*, 2011, nr 2 (40), s. 240-267.
4. Zalega T., *Rozwój zrównoważony a ekonomia zrównoważonego rozwoju - zarys problematyki*, *Studia i Materiały*, 2016, 1(20), s. 101-122.
5. Midor, K., *Ekonomia zrównoważonego rozwoju alternatywą dla współczesnej gospodarki światowej*, *Systemy Wspomagania w Inżynierii Produkcji*, 2012, 2 (2), s. 56-68.
6. *Polska 2025 - długookresowa strategia trwałego i zrównoważonego rozwoju (omówienie)*, *Przegląd Rządowy*, 2000, nr 8, s. 109-115.
7. Badzińska E., *ECONOMICS OF SUSTAINABLE DEVELOPMENT*, materiały dydaktyczne w ramach projektu "Inżynier przyszłości. Wzmocnienie potencjału dydaktycznego Politechniki Poznańskiej", 2014.
8. Zalega T., *Zrównoważony rozwój a zrównoważona konsumpcja*, *Konsumpcja i Rozwój*, 2015, 4(13).
9. *EU Sustainable Development Strategy (e.g. The 2030 Agenda for Sustainable Development)*
https://ec.europa.eu/environment/sustainable-development/strategy/review/index_en.htm
10. Gawlik J., Plichta J., Świć A., *Procesy produkcyjne*, PWE, Warszawa 2013.

Additional:

1. Poskrobko, B., *Metodologiczne aspekty ekonomii zrównoważonego rozwoju*, *Ekonomia i Środowisko*, 2012, 3(43).
2. Czaja S., *Paradygmat ekonomii głównego nurtu i ekonomii zrównoważonego rozwoju*, w: B. Poskrobko (red.), *Ekonomia zrównoważonego rozwoju w świetle kanonów nauki*, Wyższa Szkoła Ekonomiczna, Białystok 2011, s. 28-50.
3. Midor K., *Piętno ekologiczne jako miara zrównoważonego oddziaływania człowieka na środowisko*, *Ekonomika i Organizacja Przedsiębiorstwa*, 2010, nr 4.
4. Sachs J., *The end of poverty*, Penguin Books USA, New York 2005.
5. *Europa 2020. Strategia na rzecz inteligentnego i zrównoważonego rozwoju sprzyjającego włączeniu społecznemu (2010)*. Komunikat Komisji Europejskiej, Bruksela, KOM (2010).
6. Hertwich, E.G., *Life Cycle Approaches to Sustainable Consumption: A Critical Review*. *Environmental Science & Technology*, 2005, 39(13).
7. Sołoducho-Pelc, L., & Sulich, A. (2020). *Between Sustainable and Temporary Competitive Advantages in the Unstable Business Environment*. *Sustainability*, 12, 8832.

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	45	2,00