

## SYLLABUS

**Name:** Management systems and standards for sustainability  
**Name in Polish:** Systemy i standardy w zarządzaniu zrównoważonym rozwojem  
**Name in English:** Management systems and standards for sustainability

### 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:** 2025/2026, spec. Management of sustainable consumption and production  
**Coordinator of course edition:** Phd Marek Szafraniec

### Default type of course examination report:

PASS

### Language:

English

### Course homepage:

### ECTS

4

### Short description:

The aim of the course is to provide structured knowledge and information in the area of systems and standards of management concepts in organizations, with particular emphasis on theoretical and practical aspects of sustainable development management. The classes discuss issues related to standardized management systems and standards, rationale, effects, benefits, and barriers to their implementation in the organization.

### Description:

The following content is presented during the lectures:

- Introduction to the issues of systems and standards in sustainable management
- Standardization in sustainable management
- Requirements of standardized management systems – ISO14001, EMAS
- Greenhouse gas management
- Designing continuous improvement loops in the management system
- Eco-labeling
- Assessment of the sustainable operation of enterprises.
- Corporate social responsibility
- Passing test

The exercises include the following content:

- Introduction: goals and methodology of training work, selection of a company for training work
- Development of a policy for the environmental management system of the selected enterprise
- Analysis of the process map of the selected enterprise in terms of sustainable development management
- Defining the environmental aspects, objectives, and environmental management action plan of the selected enterprise
- Documentation of standardized management systems - analysis of documentation requirements
- Creating a checklist for a selected area of the standardized management system of a selected enterprise
- Developing a method for assessing the sustainable operation of enterprises.
- Presentation of results.

Number of hours of classes with members of academic staff or other persons conducting classes and students

- Lecture: 15h
- Laboratory – 30h

The number of hours devoted to the student's own work

- Test preparation: 25 hours
- Performing laboratory tasks: 50 hours.

Total number of hours: 120

Number of ECTS credits for the subject: 4

including: number of ECTS credits obtained as part of classes conducted with the participation of academic teachers or other course participants and students: 1,5

### Bibliography:

- ISO 14001 Environmental management systems – Requirements with guidance for use, ISO,

- Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC)
- ISO 20121 Sustainable events, ISO.
- ISO 14006: Environmental Management Systems – Guidelines for incorporating ecodesign
- ISO 14020: Environmental labels and declarations – General principles
- ISO 14040: Environmental Management – Life cycle assessment – Principles and Frameworks
- ISO 14050: Environmental Management – Vocabulary
- ISO 14064-1: Greenhouse Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- ISO 14031:2021 Environmental management — Environmental performance evaluation — Guidelines
- [www.iso.org](http://www.iso.org)

#### **Learning outcomes:**

##### Lectures:

K1A\_W2 - a student knows and understands theories and general methodology of research in management and quality sciences as well as the nature, place and importance of social sciences in engineering and managerial activities specific to the management and organization of sociotechnical systems in the context to management systems and standards for sustainability.

K1A\_W3 - a student knows and understands basic engineering processes and technologies in the life cycle of technical equipment, objects and systems and ways of solving typical engineering tasks, particularly in relation to the organization of production processes and production management in the context to management systems and standards for sustainability.

K1A\_W6 - a student knows and understands basic principles and objectives of sustainable development and their importance in the product life cycle in the context to management systems and standards for sustainability.

##### Laboratories:

K1A\_U2 - a student is able to identify, analyze and interpret social and economic phenomena and processes using knowledge in the field of social sciences and standard methods and tools of management and quality sciences in engineering management activities aimed at shaping the efficiency, productivity and organization of production enterprises in the context to management systems and standards for sustainability.

K1A\_U7 – student is able to work individually and in a team, assuming different roles in it, plan and organize this work, as well as interact with other people as part of teamwork (also of an interdisciplinary nature) using specialist terminology and modern information and communication technologies, and take part in the debate in the context to management systems and standards for sustainability.

K1A\_U10 – student is able to integrate and apply interdisciplinary knowledge from engineering and technical sciences incorporating principles and objectives of sustainable development to product life cycle management in the context to management systems and standards for sustainability.

K1A\_K2 – is ready for Fulfilling social obligations, co-organizing activities for the social environment, initiating activities for the public interest, thinking and acting in an entrepreneurial manner in the context to management systems and standards for sustainability.

#### **Assessment methods and assessment criteria:**

##### Lectures

- A positive grade from written test is needed to pass the lecture,
- To pass the test, at least 50% correct answers are required,
- The test can be improved twice - in written or oral form,
- Being active and participating in a constructive discussion during classes can raise the grade for the final test

##### Laboratory

- the condition for passing the laboratory classes is the development and submission of a report on the laboratory work performed that meets the formal requirements.
- reports prepared incorrectly may be corrected twice.

The final grade is the arithmetic mean of the grade from lectures and laboratory.

#### **Practical placement:**