

**56S1-ZARWOS**

**MANAGEMENT IN ENVIRONMENTAL PROTECTION**

**ECTS: 3.0**

**HOURS PER SEMESTER/WEEK:** LECTURES: 15/1; CLASSES: 30/2

**FIELD OF THE STUDY:** Environmental protection

**Level of study:** First-cycle (Engineer's degree) program

**Course status:** optional \*

**Year of the study:** II

#### **COURSE CONTENTS**

**LECTURES:** The sustainable development strategy. Designing the strategy of environmental management in the company. Determinants of pro-ecological decisions of enterprises. The polluter pays theory. Environmental management systems in enterprises - Cleaner Production Program (CPP), Best Available Techniques (BAT), Ecobalances, Life Cycle Assessment (LCA), Ecolabelling. The place of environmental management systems in the state environmental policy, requirements of the management according to ISO 14001 and EMAS.

**CLASSES:** Presentation of report on environmental consumption in the industry. Presentation of the principles of environmental management according to ISO 14001 and EMAS. Presentation of the principles of voluntary eco-labeling schemes.

**EDUCATIONAL PURPOSE:** Presentation of the principles of environmental management in enterprises and administration.

#### **LEARNING OUTCOMES**

**Knowledge.** The student knows the principles of environmental management in enterprises. He identifies the ecological aspects of business and administration activities. He knows the principles of environmental management systems according to EMAS and ISO 14001.

**Skills.** The student is able to complete a report on the use of the environment. The student is able to charge environmental fees for the use of environmental resources. He can apply working methods in the field of management and strategic planning. He is able to prepare rules for the implementation of environmental management according to ISO 14001.

**Social competences.** The student identifies relations between economic activity and the natural environment. The student is aware of the impact of economic calculation on pro-ecological decisions. The student is able to independently and in a group solve problems in the field of mandatory and voluntary environmental management instruments.

#### **TEACHING FORMS AND METHODS**

**Lectures.** Lecture with a presentation.

**Classes.** Presentation of the principles of environmental management systems, eco-labeling, BAT. Evaluation of work and cooperation in a group - passing the theoretical part of the exercises on the basis of solving tasks.

#### **FORM AND CONDITIONS FOR VERIFICATION OF LEARNING OUTCOMES**

**Lectures.** Completion of lecture material on the basis of oral answers.

**Classes.** Presentation of the principles of environmental management systems, eco-labeling, BAT. Evaluation of work and cooperation in a group - passing the theoretical part of the exercises on the basis of solving tasks in the field of environmental fees.

#### **BASIC LITERATURE**

1) G. Kobyłko (red), Proekologiczne zarządzanie przedsiębiorstwem, Wyd. Wyd. AE we Wrocławiu, 2007. 2) Pochyluk, P. Grudowski, J. Szymański, Zasady wdrażania systemu zarządzania środowiskowego zgodnego z wymaganiami normy ISO 14001, Wyd. Wyd. Ekokonsult, Gdańsk, 1999. 3) J. Ciechanoicz-McLean, Ochrona środowiska w działalności gospodarczej, Wyd. Wyd. Lexis Nexis Warszawa, 2003.

#### **ADDITIONAL LITERATURE**

1) M. Krammer (red), Międzynarodowe zarządzanie środowiskiem, Tom t.I, II, I, Wyd. Wyd. C.H. Beck, Warszawa, 2005.

#### **THE TEACHER/TEACHERS CONDUCTING THE CLASSES:**

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