UNIVERSITY OF WARMIA AND MAZURY
Faculty of Agriculture and Forestry

Course description

59S1P-25OCHPRZ **NATURE CONSERVATION** **ECTS: 2.5**

HOURS PER SEMESTER/WEEK: LECTURES: 15/1; CLASSES: 15/1
FIELD OF STUDY: Forestry (Forest Management)
Level of study: First-cycle (Engineer's degree) programme
Teaching language: Polish; **Cycle:** 2026Z

Course status: obligatory
Year/semester: II/3
Mode: full-time; **Profile:** practical

COURSE CONTENTS

LECTURES. Basic concepts, definitions and a brief history of nature conservation in Poland. The most urgent tasks in nature conservation. Biodiversity: concepts and significance for nature conservation. Genetic diversity and methods of its assessment. Species diversity and its significance for biodiversity assessment; selected indices, including FQA, FQI, Simpson's, Margalef's and Shannon's indices. Ecosystem diversity and selected assessment methods at national, international and global levels. Endemic species and their significance. Polish nature conservation legislation, including the Nature Conservation Act and regulations on the protection of fungi, plants and animals.

CLASSES. Area-based and individual forms of nature conservation. Review of protected areas in Poland, with particular emphasis on national parks. IUCN species threat categories and Red Lists for different groups of organisms. In situ and ex situ species conservation, restoration, reintroduction and zone-based protection. The Natura 2000 network. The roles of national parks, nature reserves, botanical gardens and gene banks in nature conservation. Methods of ex situ conservation of plant genetic resources, including cryopreservation.

EDUCATIONAL PURPOSE

To become familiar with nature conservation instruments and learn how to apply them.

LEARNING OUTCOMES

Knowledge. The student knows and understands the directions, motives and strategies of nature conservation and nature conservation law, as well as the causes, scale and consequences of human impacts on ecological systems, ecological processes and ecosystem biodiversity.

Skills. The student can find, understand and use information needed to protect selected plant and animal species and communicate clearly and precisely with different stakeholders in oral, written and graphical forms. The student can analyse the functioning of ecological systems and assess its effects on rare and protected species, particularly in forest areas.

Social competences. The student is prepared to take responsibility for the present and future state of nature and to apply acquired knowledge in practical nature conservation activities.

TEACHING FORMS AND METHODS

Lectures. Problem-based lectures.

Classes. Auditorium classes with information delivery and multimedia presentations; individual and group work; student presentations.

FORM AND CONDITIONS FOR VERIFICATION OF LEARNING OUTCOMES

Lectures. Written test; a minimum of 51% correct answers is required to pass.

Classes. Written test (at least 51% correct answers); presentation assessed for content accuracy and delivery; written report on the assigned task.

BASIC LITERATURE

1) Symonides E. Ochrona przyrody. Wydawnictwo Uniwersytetu Warszawskiego, 2008.
2) Mikusek R. Ochrona strefowa ptaków. Fundacja Wspierania Inicjatyw Ekologicznych, Kraków, 2012, pp. 1–68.
3) Witkoś-Gnach K. Inspekcja drzew. Podręcznik dla oceniających drzewa – poziom podstawowy. Dobre Kadry Centrum Badawczo-Szkoleniowe, Wrocław, 2021, pp. 1–112.

ADDITIONAL LITERATURE

1) Methods for Estimation of Within-Population Genetic Variation. Commission on Genetic Resources for Food and Agriculture, 2023, pp. 1–24.
2) Szymański W. 100 lat ochrony środowiska w Polsce. Instytut Naukowo-Wydawniczy Spatium, 2020, pp. 1–258.
3) Kruk H. Przegląd wybranych metod oceny bioróżnorodności. 2(49), 2014, pp. 44–62.

THE TEACHER CONDUCTING THE COURSE

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