Appendix No. 1.5 to the Resolution No. 61/2025
of the Rector of the University of Rzeszów

SYLLABUS

REGARDING THE QUALIFICATION CYCLE FROM 2026/2027 TO 2029/2030
ACADEMIC YEAR 2026/2027

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	**Ecology and Environmental Protection**
Course/Module code *	
Faculty (name of the unit offering the field of study)	Faculty of Technology and Life Sciences
Name of the unit running the course	Institute of Agricultural Sciences, Environmental Protection and Management Department of the Basis of Agriculture and Waste Management
Field of study	Agriculture
Qualification level	First-cycle studies
Profile	General academic
Study mode	Full-time
Year and semester of studies	Year I, Semester I
Course type	Core course
Language of instruction	English
Coordinator	dr hab. Grzegorz Pączka, prof. UR
Course instructor	dr hab. Grzegorz Pączka, prof. UR

* - as agreed at the faculty

1.1. Learning format – number of hours and ECTS credits

Semester (no.)	Lectures	Classes	Laboratories	Seminars	Practical classes	Internships	others	**ECTS credits**
1	10		15					2

1.2. Course delivery methods

x conducted in a traditional way

- involving distance education methods and techniques

1.3. Course/Module assessment (exam, pass with a grade, pass without a grade)

LECTURE – PASS WITHOUT A GRADE

LABORATORIES – PASS WITH A GRADE

2. PREREQUISITES

Basic knowledge of botany and zoology

3. OBJECTIVES, LEARNING OUTCOMES, COURSE CONTENT, AND INSTRUCTIONAL METHODS

3.1. Course/Module objectives

O1	Familiarizing students with selected issues in the fields of sozology and sustainable development
O2	Familiarizing students with hazards caused by human activity and methods for minimizing them
O3	Identifying basic cause and effect relationships in the biotic and abiotic worlds
O4	To familiarize students with the need for environmental monitoring and the response of living organisms to environmental stressors (primarily abiotic)

3.2. COURSE/MODULE LEARNING OUTCOMES

Learning Outcome	The description of the learning outcome defined for the course/module	Relation to the degree programme outcomes
LO_01	The student knows and understands the basic processes and cause and effect relationships occurring in nature	K_W01
LO_02	Understands the role and significance of the natural environment in agriculture, as well as the threats to it	K_W05
LO_03	Knows and understands the need to implement and work towards the sustainable development of rural areas and the protection of biodiversity	K_W08
LO_04	Is able to search for and analyze information and numerical data related to agriculture	K_U01
LO_05	Is able to take action to address problems related to the state of the environment and natural resources	K_U04
LO_06	Is able to properly shape the agricultural environment and to identify, analyze, and minimize the causes of its degradation	K_U09
LO_07	Is prepared to disseminate the latest information regarding agricultural advancements and their impact on the natural environment	K_K04

3.3. Course content

A. Lectures

Content outline
Sozology. Natural resources (renewable, potentially renewable, and non-renewable)
Environmental threats
Global atmospheric degradation (greenhouse effect, acid rain, ozone depletion, smog)
Threats to the aquatic environment and drinking water resources, and their protection

Waste; the modern waste management system. Noise pollution. Odor-related hazards. Radiation
Education for sustainable development

B. Laboratories

Content outline
Practical aspects of renewable energy use in agriculture
The need for environmental monitoring
Selected aquatic and soil fauna – application in bioindication
Pollutants in biogeochemical cycles and organisms
Responses of living organisms to degradation factors
Environmental Impact Assessments (EIA)

3.4. Methods of Instruction

Lecture: a lecture supported by a multimedia presentation
Laboratory classes: designing and conducting experiments, discussion, group work

4. Assessment techniques and criteria
4.1 Methods of evaluating learning outcomes

Learning outcome	Methods of assessment of learning outcomes (e.g. test, oral exam, written exam, project, report, observation during classes)	Learning format (lectures, classes…)
LO-01	PROGRESS TEST, END-OF-TERM TEST	LECTURES, LAB.
LO-02	PROGRESS TEST, END-OF-TERM TEST	LECTURES, LAB.
LO-03	PROGRESS TEST, END-OF-TERM TEST	LECTURES, LAB.
LO-04	PROGRESS TEST, END-OF-TERM TEST	LECTURES, LAB.
LO-05	CONTINUOUS OBSERVATION, ORAL RESPONSE	LECTURES, LAB.
LO-06	CONTINUOUS OBSERVATION, ORAL RESPONSE	LECTURES, LAB.
LO-07	CONTINUOUS OBSERVATION, ORAL RESPONSE	LAB.

4.2 Course assessment criteria

Lecture: credit based on a qualifying test. Laboratory: graded credit based on conducting laboratory experiments, an oral presentation of results, and passing interim tests as well as a final written test. Passing the course requires achieving all the intended learning outcomes. The final grade is determined by the number of points obtained (>50% of the maximum score): satisfactory (3) 51%, satisfactory plus (+3) 60%, good (4) 70%, good plus (+4) 80%, very good (5) 90%.

5. Total student workload needed to achieve the intended learning outcomes – number of hours and ECTS credits

Activity	Number of hours
Course hours	25
Other contact hours involving the teacher (consultation hours, examinations)	5
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	20
Total number of hours	50
Total number of ECTS credits	2

* One ECTS point corresponds to 25-30 hours of total student workload

6. Internships related to the course/module

Number of hours	-
Internship regulations and procedures	-

7. Instructional materials

Compulsory literature: materials provided by the teacher and online resources on the topics covered
Complementary literature: online resources on the topics covered

Approved by the Head of the Department or an authorised person