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 2027/2028

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	**Weeds in cultivated fields**
Course/Module code *	
Faculty (name of the unit offering the field of study)	Faculty of Technology and Natural Sciences
Name of the unit running the course	Institute of Agricultural Sciences, Environmental Protection and Management, Department of Crop Production
Field of study	Agriculture
Qualification level	first-cycle studies
Profile	general academic
Study mode	full-time studies
Year and semester of studies	year II, semester 4
Course type	Major subject
Language of instruction	English
Coordinator	dr hab. inż. Jan Buczek, prof. UR
Course instructor	dr hab. inż. Jan Buczek, 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	Field classes	**ECTS credits**
6	10		15				10	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
field classes – pass without a grade

2. PREREQUISITES

Knowledge of the fundamental natural science principles underlying agriculture, ecology, environmental protection, and general crop and soil cultivation

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

3.1. Course/Module objectives

O1	Familiarizing students with issues regarding weed management and biodiversity in agriculture.
O2	Imparting knowledge on weed management methods and techniques in agriculture, and presenting differences in weed control across various agricultural systems
O3	Developing the ability to critically analysis issues related to species diversity in arable field habitats, in accordance with principles that minimize negative environmental impact.

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	knows and understands basic concepts of weed science, identifies the most common weed species, and is familiar with weed control methods	K_W01, K_W02
LO_02	is able to determine the harmful and beneficial effects of segetal and ruderal weeds on the environment and crop production	K_U03
LO_03	is able to characterize and select control methods for specific species of segetal and ruderal flora found in cultivated fields	K_U04
LO_04	is prepared to protect biodiversity in the natural environment	K_K02

3.3. Course content

A. Lectures

Content outline
Biodiversity and the farm
The cultivated field as a weed plant community; weeds as indicators of habitat conditions
Classification of weeds based on various criteria and their practical significance
Weed control methods
Herbicides: mechanisms of action, selectivity, and the benefits and negative effects of their use
Development of herbicide resistance in weeds; weed compensation

B. Laboratories, field classes

Content outline
Biological, agroecological, and economic characteristics of expansive segetal and ruderal weed species – descriptions of selected weed species
Invasive weed species
Methods for measuring species biodiversity of segetal and ruderal flora in cultivated fields
Designing weed management programs for various crops

Methods for assessing weed infestation levels in crop stands (field classes)

3.4. Methods of Instruction

Lecture: lecture with multimedia presentation
Laboratories: group work, problem-solving, discussion
Field classes: site inspection, 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	test	lec.
LO_02	test	lec.
LO_03	test, study (description and characteristics of selected weed species), continuous observation during classes, report	lec., lab., f. classes
LO_04	continuous observation during classes	lab.

4.2 Course assessment criteria

Lecture: credit based on a test Laboratories: determination of the final grade based on component grades from mid-term tests and the written assignment Practical classes: report on the activities conducted To pass the course, all intended learning outcomes must be achieved. A passing grade is determined by the number of points obtained (>50% of the maximum score): satisfactory (dst) 51–60%, satisfactory plus (dst plus) 61–70%, good (db) 71–80%, good plus (db plus) 81–90%, very good (bdb) 91–100%.

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

Activity	Number of hours
Course hours	35
Other contact hours involving the teacher (consultation hours, examinations)	4
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	36
Total number of hours	75
Total number of ECTS credits	3

* 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