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	**General soil and plant cultivation**
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 3
Course type	major
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**
3	15		30				5	4

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 – exam
laboratories – pass with a grade
field classes – pass without a grade

2. PREREQUISITES

Knowledge of the basic principles of agrometeorology and soil science.

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

3.1. Course/Module objectives

O1	Familiarizing students with the habitat and cultivation conditions of agricultural production and the possibilities of managing them.
O2	Explanation of the function and significance of key natural and agrotechnical factors influencing crop sequence components and the design of crop rotations.
O3	Imparting fundamental knowledge regarding field biodiversity within the framework of sustainable development principles.
O4	Developing skills in planning crop production for a specific habitat within crop rotation systems, taking into account tillage and cropping practices as well as methods of weed control.

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 habitat and cultivation conditions relevant to agricultural production, as well as the possibilities for managing them	K_W01, K_W02
LO_02	knows and understands the natural and agrotechnical factors involved in crop sequences and crop rotations, and identifies common weed species	K_W07
LO_03	is able to determine the impact of natural and agrotechnical factors on crop production, develops crop rotation plans and principles for soil and crop cultivation, and selects methods for weed control	K_U03, K_U07
LO_04	is prepared to work in a team to identify weather-related risks to agricultural production	K_K01

3.3. Course content

A. Lectures

Content outline
Crop habitats: climatic, topographic, edaphic, biotic, and anthropogenic factors
Crop sequences and crop rotations: basic concepts, natural and agrotechnical factors influencing sequences, and types of crop rotations
Theoretical principles of tillage and crop cultivation
Weed ecology and biology

B. Laboratories, field classes

Content outline
Terminology related to field crop production – a review of scientific literature
Seed science of economically important agricultural crops – description of seed morphological traits
Components of crop rotations – independent characterization
Designing crop rotation segments and links; types of field crop rotations
Developing field crop rotations; principles of tillage and crop cultivation within rotations
Tillage systems, tillage operations, and their modifications – a review of scientific literature
Planning comprehensive tillage and crop cultivation schemes
Agroecosystem biodiversity; methods for assessing and managing weed infestation
Inspection of controlled field experiments and field-scale crop trials (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	exam	lec.
LO_02	exam	lec.
LO_03	exam, test, report	lec., lab., f. classes
LO_04	continuous observation during classes	lab.

4.2 Course assessment criteria

Lecture: exam Laboratories: final grade determined based on partial grades from tests Field 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	50

Other contact hours involving the teacher (consultation hours, examinations)	4
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	46
Total number of hours	100
Total number of ECTS credits	4

* 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