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** *2027/2028*
ACADEMIC YEAR *2027/2028*

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	**Agriculture Systems**
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	second-cycle studies
Profile	General academic profile
Study mode	Full-time
Year and semester of studies	Year 1, Semester 2
Course type	Specialization / Agronomy with Agribusiness
Language of instruction	English
Coordinator	dr hab. inż. prof. UR Wacław Jarecki
Course instructor	dr hab. inż. prof. UR Wacław Jarecki (w, ćw)

* - 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**
2	14		27					3

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)
pass with a grade

2. PREREQUISITES

Knowledge of the key principles of general and specific crop and soil management, animal production, and agricultural technology.

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

3.1. Course/Module objectives

O1	Presentation of issues regarding agricultural management systems
O2	Imparting knowledge about the differences in production processes used in conventional, integrated, organic, and other systems
O3	Developing skills in farm management based on the principles characteristic of conventional, integrated, and organic farming systems

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 principles regarding differences in production processes used in conventional, integrated, and organic farming systems	K_W04
LO_02	is able to compare agricultural systems in terms of inputs, management practices, and production technologies	K_U04
LO_03	is able to map out the flow of organic matter and nutrients on a farm operated under different agricultural systems	K_U04
LO_04	is prepared to apply management principles associated with different agricultural systems and to assess their impact on the environment and food quality	K_K04

3.3. Course content

A. Lectures

Content outline
Historical overview of the development of agricultural systems.
Definition of agricultural systems and production orientations.
Factors determining the development of various farming systems.
Characteristics of conventional, integrated, and organic farming.
Production control and certification.
Economic and energy efficiency aspects of farming systems.
Environmental protection and farming systems.
Agrotechnical principles applied in various agricultural systems.

B. Laboratories

Content outline
Comparison of farming systems regarding management methods and resources (farm size, environmental conditions and farm location, landscape shaping)

Technologie produkcji w systemach gospodarowania (płodozmian, uprawa roli, nawożenie, zwalczanie chwastów i ochrona roślin, materiał siewny i dobór odmian)
Modifications to farming systems. Regenerative agriculture. Precision agriculture. Soilless and protected cultivation. Permaculture. Urban agriculture.

3.4. Methods of Instruction

Lecture: lecture with multimedia presentation
Laboratories: preparing a report, group work, problem-solving, discussion.

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	COLLOQUIUM	lectures
LO-02	COLLOQUIUM	lectures
LO-03	PREPARING STUDIES, GROUP WORK, PROBLEM-SOLVING, DISCUSSION	laboratories
LO-04	CONTINUOUS OBSERVATION DURING CLASSES, PREPARATION OF A PRESENTATION, COLLOQUIUM	laboratories

4.2 Course assessment criteria

Lecture: test with open-ended questions. Laboratory classes: graded credit; the final grade is determined based on scores from the test, reports, and presentations. A passing grade for the course is determined by the number of points obtained (>50% of the maximum): 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%. To pass the course, all intended learning outcomes must be achieved.

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

Activity	Number of hours
Course hours	41
Other contact hours involving the teacher (consultation hours, examinations)	participation in consultations – 8
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	preparation for classes – 12 preparation of the report and presentation – 14
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