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 2026/2027

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	**Innovations in plant production**
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 1
Course type	Specialization / Agronomy with Agribusiness
Language of instruction	English
Coordinator	prof. Ewa Szpunar-Krok
Course instructor	prof. Ewa Szpunar-Krok

* - as agreed at the faculty

1.1. Learning format – number of hours and ECTS credits

Semester (no.)	Lectures	Classes	Laboratories	Seminars	Project classes	Internships	Field classes	**ECTS credits**
1	14		14		6		7	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)
pass with a grade

2. PREREQUISITES

Knowledge of general crop and soil management and specific crop cultivation

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

3.1. Course/Module objectives

O1	To familiarize students with issues related to innovation in crop production.
O2	To present methods for generating and implementing innovations in agriculture.
O3	To prepare students to independently analyze the impact of innovation on crop production.

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 the factors driving innovation in crop production	K_W04
LO_02	knows and understands various techniques and technologies used in agriculture, drawing on diverse sources of information	K_W04, K_W06
LO_03	is able to identify the determinants of optimization and agricultural progress	K_U04
LO_04	is able to skillfully apply acquired knowledge in discussions regarding technical and technological innovations in crop production, interpret the views of others, and independently prepare an oral presentation	K_U01, K_U05
LO_05	is prepared to critically evaluate their knowledge regarding innovation in crop production and strives to expand it	K_K01
LO_06	is prepared to practice the profession of farmer responsibly and adhere to professional ethical standards	K_K04

3.3. Course content

A. Lectures

Content outline
The concept and definitions of progress. Types of progress in agriculture.
Drivers of innovation in agriculture. The innovativeness of Polish agriculture compared to other EU countries.
Innovation activity in Polish agriculture. Factors influencing the implementation of innovations in crop production on farms.
Metrics for measuring innovation in agriculture.
The Common Agricultural Policy (CAP) and innovation. The National Rural Network (SIR) for innovation in agriculture and rural areas.
New trends in tillage and crop cultivation.

B. Laboratories, project classes, field classes

Content outline
Laboratory exercises
Analysis of the role of innovation in crop production based on scientific literature.
Achievements and examples of innovations implemented on farms.
Efficient and safe crop production technologies.
Project-based classes
Pro-innovation projects in crop production.
Advantages and disadvantages of innovations introduced in crop production – examples.
Fieldwork involving the practical application of knowledge gained during classes.

3.4. Methods of Instruction

Lecture: lecture with a multimedia presentation. Laboratories and project work: group work / discussion / literature review on innovations in tillage and crop cultivation, oral presentation, report. Fieldwork: familiarization with innovative solutions based on a selected farm or agricultural enterprise, 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	test	lectures, laboratories
LO-02	test, report	lectures, laboratories
LO-03	test	lectures, laboratories
LO-04	preparation of a presentation and oral presentation, field trip report	laboratories, field classes
LO-05	continuous observation during classes	laboratories
LO-06	continuous observation during classes	laboratories

4.2 Course assessment criteria

To pass the course, all intended learning outcomes must be achieved.
lecture: pass/fail,
laboratory exercises and project work: graded pass; the grade is determined based on partial grades from tests, a presentation on an assigned topic, participation in discussions, and observation of class activity,
fieldwork: pass based on a report.
A passing grade on the tests (covering both lectures and exercises) is determined by the number of points obtained (>50% of the maximum score): satisfactory (dst) 50–59%, satisfactory plus (dst plus) 60–69%, good (db) 70–79%, good plus (db plus) 80–89%, very good (bdb) 90–100%.

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)	7
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	preparing a presentation 20 preparing a report 7 preparing for a test 25
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