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 TO 2029
ACADEMIC YEAR 2026/2027.

1. BASIC COURSE/MODULE INFORMATION

Course/Module title	Introduction to the Computer Lab
Course/Module code *	
Faculty (name of the unit offering the field of study)	Faculty of Exact and Technical Sciences
Name of the unit running the course	Institute of Mathematics
Field of study	Mathematics
Qualification level	First-cycle studies (Bachelor's)
Profile	General academic
Study mode	Full-time
Year and semester of studies	Year 1, Semester 1
Course type	General subject
Language of instruction	English
Coordinator	Ewa Rak, PhD
Course instructor	Ewa Rak, PhD

* - 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			15					1

1.2. Course delivery methods

☒ 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)

Laboratory classes - passing with a grade

2.PREREQUISITES

Basic knowledge about computers and operating systems (secondary school level).

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

3.1. Course/Module objectives

O1	Preparation for independent functioning in the modern information society, as well as development of practical skills in the conscious and efficient use of ICT at work.
O2	Familiarization with information and communication technology tools and services.
O3	Developing the ability to select appropriate IT tools to carry out one's own tasks.
O4	Familiarization with the problems and threats related to the development of information and communication technologies.

3.2. COURSE/MODULE LEARNING OUTCOMES (TO BE COMPLETED BY THE COORDINATOR)

Learning Outcome	The description of the learning outcome defined for the course/module	Relation to the degree programme outcomes
LO_01	The student knows advanced information technologies, including the principles of working with spreadsheets and presentation graphics, and knows the possibilities of using them in solving problems, applications, or various mathematical problems.	K_W06
LO_02	The student is able to proficiently navigate a spreadsheet and prepare an interactive presentation with the appropriate structure.	K_U15
LO_03	The student is ready to critically assess his or her strengths and weaknesses, to acknowledge the limitations of his or her own knowledge and skills, and therefore to recognize the need to improve his or her own competences.	K_K01

3.3. Course content (to be completed by the coordinator)

A. Lectures

B. Classes, laboratories, seminars, practical classes

Content outline
1. **Introduction to Spreadsheets.** Spreadsheet basics: formatting cells, navigating a spreadsheet, editing data, saving and closing files, and managing multiple spreadsheets. An overview of date and time formatting, as well as a review of key function groups: text, statistical, logical, and financial. 2. **Data analysis and presentation of results.** Creating charts and graphically presenting data. Building dynamic relationships between sheets and workbooks. Preparing summaries and reports using pivot tables. 3. **Principles of preparing multimedia presentations.** Presentation design basics. Working with PowerPoint: using templates, slide types, slide masters, automatic slide numbering and footers, adding notes, inserting illustrations, charts, and organizational charts. Designing interactive presentations. Printing and recording slides.

3.4. Methods of Instruction

Laboratory classes - group work, problem solving, design, 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, observation during classes	lab
LO_02	test, project, observation during classes	lab
LO_03	observation during classes	lab

4.2 Course assessment criteria

Assessment of laboratory classes: based on a test, a project, and activity during classes.

The condition for passing the course is obtaining at least 50% of the points from the colloquium and completing a graphic presentation project.

The final grade is determined according to the following scale:

less than 50% of points – failure, [50 – 60%] points – satisfactory (3.0), [60 – 70%] points – plus satisfactory (3.5), [70 – 80%] points – good (4.0), [80 – 90%] points – plus good (4.5), [90–100%] points – very good (5.0).

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

Activity	Number of hours
Course hours	15
Other contact hours involving the teacher (consultation hours, examinations)	2
Non-contact hours - student's own work (preparation for classes or examinations, projects, etc.)	15
Total number of hours	32
Total number of ECTS credits	1

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

6. Internships related to the course/module

Number of hours	*Not applicable*
Internship regulations and procedures	*Not applicable*

7. Instructional materials

Compulsory literature: 1. Jelen Bill, Syrstad Tracy, Microsoft Excel VBA and Macros (Office 2021 and Microsoft 365), Pearson Education, 2022. 2. Wilson Kevin, Using Microsoft PowerPoint - 2023 Edition, Elluminet Press, 2024.
Complementary literature: 1. Nathan George, Mastering Excel VBA Programming: A Hands-On Guide to Automating Excel and Building Custom Solutions with VBA and Macros, GTech Publishing, 2025.

Approved by the Head of the Department or an authorised person