POZNAN UNIVERSITY OF TECHNOLOGY

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Advanced functions of MS Office [S1IZarz1>ZFMO]

Course

Field of study	Year/Semester
Engineering Management	1/1
Area of study (specialization)	Profile of study
–	general academic
Level of study	Course offered in
first-cycle	Polish
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other
0	30	0
Tutorials	Projects/seminars	
0	0	

Number of credit points

3,00

Coordinators

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Lecturers

Prerequisites

Knowledge from high school in the field of computer science and science. Basic computer skills and office packages. Ability to work in a laboratory group.

Course objective

Students should acquire proficiency in using a spreadsheet in the field of engineering calculations, including selected optimization issues. They should also acquire the ability to freely and efficiently use a text editor to edit documents.

Course-related learning outcomes

Knowledge:
The student describes and recalls basic methods and tools for data collection in a spreadsheet [P6S_WG_08].
The student identifies the life cycle of socio-technical systems [P6S_WG_13].
The student explains the basic principles of occupational safety and health related to working in MS Office applications [P6S_WG_18].

Skills:

The student uses theoretical knowledge to analyze specific processes and social phenomena in management, including the use of a spreadsheet for economic data analysis [P6S_UW_01].

The student plans and conducts experiments, including measurements and computer simulations, to interpret results and draw conclusions about management [P6S_UW_09].

The student applies basic analytical, simulation, and experimental methods to solve engineering tasks in the context of MS Office applications [P6S_UW_10].

Social competences:

The student prepares and implements business ventures using MS Office tools, such as spreadsheets and databases [P6S_KO_03].

The student contributes substantively to the preparation of social and business projects, taking into account legal, economic, and organizational aspects [P6S_KO_01].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The grade from the laboratory is given as an average of the grades of individual tasks performed during classes. The assessment takes into account the correctness and completeness of the results obtained.

Programme content

Working with MS Excel spreadsheet: data formatting, formulas, functions, absolute addresses, creating and formatting charts, filtering and sorting data, reports, macros, conditional formatting.

Course topics

Working with MS Excel spreadsheet (moving, creating copies, renaming). Data formatting. Create formulas with mathematical and statistical functions using relative, absolute and mixed addresses. Formulas with conditional expressions in MS Excel. Financial functions in a spreadsheet. Text expressions. Expressions with date and time functions on a worksheet. Expressions with counting functions. Creating and formatting charts. Databases in a spreadsheet: autofilter, advanced filter, subtotal report, pivot table report. Expressions with search functions. Macros and conditional formatting in a spreadsheet.

Teaching methods

Laboratories: laboratory (experiment) method, workshop method.

Bibliography

Basic:

Kowalczyk G., Word 2016 PL. Ćwiczenia praktyczne, Helion 2016

Wrotek W., Excel 2019 PL. Kurs, Helion 2019 III, Helion, Gliwice 2014

Additional:

Walkenbach J., Alexander M., Analiza i prezentacja danych w Microsoft Excel. Vademecum Walkenbacha. Wydanie II, Helion 2014

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,00
Classes requiring direct contact with the teacher	30	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	45	2,00