COURSE DESCRIPTION CARD - SYLLABUS

Course name
Advanced functions of spreadsheet [N1IBez2>ZFAK]

Course

Field of study
Safety Engineering

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
0

Laboratory classes
18

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

Knowledge from high school in the field of computer science. Basic computer and office skills.

Course objective

Students acquire skills in the efficient use of a spreadsheet in the field of engineering calculations with the use of functions and formulas. They are able to create and edit charts.

Course-related learning outcomes

Knowledge:
He knows the fundamental dilemmas of modern civilization and development trends as well as the best practices in the field of advanced functions of spreadsheet. [K1_W10].

Skills:
Can properly select sources and information derived from them, perform the evaluation, critical analysis and synthesis of this information. [K1_U01].
Can use various techniques in order to communicate in a professional environment and in other environments. [K1_U02].

Can use analytical, simulation and experimental methods to formulate and solve engineering tasks, also with the use of information and communication methods and tools. [K1_U04].

Social competences:
He can see the cause-and-effect relationships in the implementation of set goals and use ranks in relation to the importance of alternative or competitive tasks. [K1_K01].
Is aware of the understanding of non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions made. [K1_K03].
He can initiate activities related to the formulation and transfer of information as well as cooperation in the area of advanced functions of a spreadsheet. [K1_K05].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

There are two tests during the semester, during which students carry out tasks related to the material of laboratory classes (on the computer) on their own. Each task is scored. The test is passed if at least 50% of points are achieved. The final grade for the subject is the average of the marks from the two tests.

Programme content

Data formatting, formulas in solving math problems, sorting data, filtering, subtotals, pivot table, absolute addresses in calculations, creating and editing charts, conditionalfunctions and conditional summation functions in tasks, macros, selected text functions, logical expressions, date and time functions, selected financial functions, data search functions, replacement and counting functions, conditional data formatting.

Teaching methods

The method programmed with the use of a computer - the teacher discusses the tasks to be performed by students, explains complicated issues using examples and analogous tasks.
Practical method - laboratory exercises - students carry out the tasks themselves after prior explanation by the teacher.

Bibliography

Basic:
Wrotek W., Excel 2019 PL. Kurs, Helion 2019 III, Helion, Gliwice 2014
Kowalczyk G., Word 2016 PL. Ćwiczenia praktyczne, Helion 2016

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	50	2,00
Classes requiring direct contact with the teacher	18	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	32	1,00