



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Information technology in safety engineering

Course

Field of study

Safety Engineering

Area of study (specialization)

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

Polish

Requirements

compulsory

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

30

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Ph.D., Eng. Krzysztof Hankiewicz

Responsible for the course/lecturer:

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Prerequisites

1. Knowledge: Knowledge from the high school level.
2. Skills: The student is able to run programs and perform activities with files and directories, use a web browser and e-mail.
3. Social competences: Is able to participate in laboratory activities.

Course objective

Introducing students to the basic concepts of using an application in a network environment and sharing data and exchanging information between departments of an organization. Developing the ability to create and save simple databases. To acquaint students with the ergonomic features of the software. Initial knowledge of IT issues important for studies in the field of safety engineering.



Course-related learning outcomes

Knowledge

1. The student knows the fundamental dilemmas of modern civilization and development trends as well as the best practices in the field of security engineering [K1_W10].
2. The student knows at an advanced level the methods, techniques, tools and materials used in preparation for conducting scientific research and solving simple engineering tasks with the use of information technology, information protection and computer support [K1_W11].

Skills

1. The student is able to properly select the sources and information derived from them, making the assessment, critical analysis and synthesis of this information [K1_U01].
2. The student is able to use various techniques to communicate in a professional environment and in other environments [K1_U02].
3. The student is able to identify changes in requirements, standards, regulations and technical progress and the reality of the labor market, and on their basis determine the need for supplementing knowledge [K1_U12].

Social competences

1. The student is aware of the importance of knowledge in solving problems in the field of safety engineering and continuous improvement [K1_K02].
2. The student 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 [K1_K03].
3. The student is able to initiate activities related to the formulation and transfer of information and cooperation in the society in the field of security engineering [K1_K05].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

implementation of exercise tasks, practical tests on the computer.

Summative assessment:

assessment based on the sum of accumulated points. Passing threshold 50% of the maximum possible number of points to be earned.

Programme content

Searching, collecting and analyzing data including internet sources. Creating and managing databases in an enterprise with the use of Database Management Systems. Using databases as data collection programs for health and safety management. Data security in integrated management systems. Assessment of the usability and ergonomic features of software and websites.



Teaching methods

Laboratory method: presentation illustrated with examples and carrying out the tasks given by the teacher - practical exercises.

Bibliography

Basic

1. Adamczewski P., Zintegrowane systemy informatyczne w praktyce, ZNI MIKOM, 2014
2. Beynon-Davies P., Systemy baz danych, WNT, 2000
3. Hankiewicz K., Jakość użytkowa jako cecha determinująca sprawność dokonywania elektronicznych operacji biznesowych, Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług - 2013, nr 104 (762), p. 199-206
4. Karczewski J., Systemy informatyczne w zarządzaniu bezpieczeństwem i higieną pracy, ODDK, 2000.

Additional

1. Banaszak Z., Kłos S., Mleczko J., Zintegrowane systemy zarządzania, PWE, 2016
2. Januszewski A., Funkcjonalność informatycznych systemów zarządzania, Wydawnictwo Naukowe PWN, 2021
3. Sikorski M., Interakcja człowiek – komputer, Wydawnictwo PJWSTK, 2010

Breakdown of average student's workload

	Hours	ECTS
Total workload	55	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (preparation for laboratory classes, preparation for tests)	25	1,0