

FACULTY OF ELECTRICAL  
ENGINEERING**SUBJECT CARD**

Name in Polish: **Technologie informacyjne**  
 Name in English: **Computer technology**  
 Main field of study (if applicable): **Industrial Control Engineering**  
 Specialization (if applicable):  
 Level and form of studies: **1st level, full-time**  
 Kind of subject: **obligatory**  
 Subject code: **INR052501**  
 Group of courses: **NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU):	15		15		
Number of hours of total student workload (CNPS):	30		30		
Form of crediting:	crediting with grade		crediting with grade		
For group of courses mark (X) final course:					
Number of ECTS points:	1		1		
including number of ECTS points for practical (P) classes :			1		
including number of ECTS points for direct teacher-student contact (BK) classes:	0.70		0.70		

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES**

1. Knowledge of basic problems of computer technics.
2. Abilities of basic handling computer.

**SUBJECT OBJECTIVES**

- C1. Deepening knowledge of basic computer hardware and software, especially the WINDOWS software.
- C2. Deepening practical skills in handling basic computer hardware and software, especially the WINDOWS software.

**SUBJECT LEARNING OUTCOMES***relating to knowledge:*

- PEU\_W01 The student has knowledge in the scope of basic computer hardware.
- PEU\_W02 The student knows basic computer software, especially the WINDOWS software.
- PEU\_W03 The student has knowledge in the scope of utilization of computer systems in computer networks.

*relating to skills:*

- PEU\_U01 The student is able to effectively use I/O devices.
- PEU\_U02 The student is able to effectively manage information and data in the Windows environment on a basic level.
- PEU\_U03 The student is able to effectively utilize Internet.

*relating to social competences:*

- PEU\_K01 The student has good habits in handling computer to ensure high its quality.

## PROGRAMME CONTENT

Form of classes - lecture		Number of hours:
Lec 1	An introduction, the lecture program, requirements. Basic terms of computer science: hardware, software, information technology. Types of computers. Basic parts of PC. Computer performance.	2
Lec 2	Computer hardware: processor, computer memory, input/output devices, mass memory.	2
Lec 3	Computer software: type of software. operating systems, utility software, graphical interface. Structures and development of computer systems.	2
Lec 4	Computer networks: LAN i WAN, Intranet, Extranet, Internet. Utilisation of computers: computer in business, services in computer networks (e-Mail, e-commerce). Information security: basic terms, secure computer system.	2
Lec 5	Information security management: reasons of errors of computer protection, basic strategies to combat security threats	2
Lec 6	Problems of safety, health and the environment when working with a computer: ergonomics, health care, precautions, computers and natural environment.	2
Lec 7	Some of the legal issues: author law, Polish law dealing the protection of personal data.	2
Lec 8	Final test	1
Total hours:		<b>15</b>

Form of classes - laboratory		Number of hours:
Lab 1	Principles of utilisation of PC: creating a work environment, a desktop environment, managing files, antiviral protection, printing.	2
Lab 2	Text processing: general principles of use of application, basic operations of text formatting.	2
Lab 3	Text processing: objects (tables, pictures, drawings), serial correspondence, printing.	2
Lab 4	Spreadsheets: general principles of use of application, creating documents including calculations and text, addressing, the concepts of a worksheet and spreadsheet, formatting cells and worksheets, formulas, functions.	2
Lab 5	Database: general principles of use of application, tables, forms.	2
Lab 6	Database: retrieving information from database, reports, printing	2
Lab 7	Presentation and manager graphics: general principles of use of application; creating presentation including text, pictures, charts and diagrams.	2
Lab 8	Services in computer networks: utilization of Internet (e-Mail, WWW browsers, search engine tools)..	1
Total hours:		<b>15</b>

## TEACHING TOOLS USED

- N1. Multimedia presentation.
- N2. Information lecture.
- N3. Preparation in the form of reports.
- N4. Computer editor.
- N5. Spreadsheets.
- N6. Program for creation and management of database.
- N7. Program for preparing presentations.
- N8. Program for providing services in computer networks.

## EVALUATION OF SUBJECT LEARNING OUTCOMES ACHIEVEMENT

Evaluation <i>F - forming (during semester)</i> <i>P - concluding (at semester end)</i>	Educational effect number	Way of evaluating educational effect achievement
F1(w)	PEU_W01 PEU_W02 PEU_W03	activity at the classes
F2(w)	PEU_W01 PEU_W02 PEU_W03	average of the grades from tests
P(w)	P=0.1 F1 + 0.9 F2	
F1(L)	PEU_U01 PEU_U02 PEU_U03	activity at the classes
F2(L)	PEU_U01 PEU_U02 PEU_U03	reports from the classes
P(L)	P=0.3 F1 + 0.7 F2	

<b>PRIMARY AND SECONDARY LITERATURE</b>
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<b>PRIMARY LITERATURE:</b>
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| <ul style="list-style-type: none"><li>[1] Anderson A., Benedetti R., Sieci komputerowe. Helion, Gliwice 2012.</li><li>[2] Kawa R., Lembas J., Wstęp do informatyki. PWN, Warszawa, 2018</li><li>[3] Pikoń K., ABC internetu, Wyd. VII, Helion, Gliwice 2017.</li><li>[4] Rzędowska A., Rzędowski J., Mistrzowskie prezentacje. Slajdowy poradnik mówcy doskonałego. Wyd. II, Onepress, Warszawa 2017.</li><li>[5] Wróblewski P., ABC komputera, Wyd. XI, Helion, Gliwice 2017.</li></ul> |
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<b>SECONDARY LITERATURE:</b>
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| <ul style="list-style-type: none"><li>[1] Alexander M., Microsoft Access. Przewodnik dla użytkowników Excela, Helion, Gliwice 2011.</li><li>[2] Janus R., Komputer i Internet dla początkujących. Warszawa, Wiedza i Praktyka, 2018.</li><li>[3] Jelen B., Alexander M., Microsoft Excel 2019. Przetwarzanie danych za pomocą tabel przestawnych, Promis, Warszawa 2019.</li><li>[4] Walkenbach J., Alexander M., Analiza i prezentacja danych w Microsoft Excel. Vademecum Walkenbacha. Wyd.II, Helion, Gliwice 2014.</li><li>[5] Wołk K., Microsoft Office 2019 oraz 365 od podstaw, Psychoskok, Konin 2019.</li><li>[6] Wrotek W., ABC Excel 2019 PL, Helion, Gliwice 2019.</li></ul> |
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<b>SUBJECT SUPERVISOR</b>
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