

FACULTY OF ELECTRICAL  
ENGINEERING**SUBJECT CARD**

Name in Polish: **Technologie informacyjne**  
 Name in English: **Computer Technology**  
 Main field of study (if applicable): **Electrical Engineering**  
 Specialization (if applicable):  
 Level and form of studies: **1st level, full-time**  
 Kind of subject: **obligatory**  
 Subject code: **INR042501**  
 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 EDUCATIONAL EFFECTS***relating to knowledge:*

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

*relating to skills:*

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

*relating to social competences:*

- PEK\_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	Security and health issues: 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
<p>N1. Multimedia presentation.</p> <p>N2. Information lecture.</p> <p>N3. Preparation in the form of reports.</p> <p>N4. Computer editor.</p> <p>N5. Spreadsheets.</p> <p>N6. Program for creation and management of database.</p> <p>N7. Program for preparing presentations.</p> <p>N8. Program for providing services in computer networks.</p>

EVALUATION OF SUBJECT EDUCATIONAL EFFECTS 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)	PEK_W01 PEK_W02 PEK_W03	activity at the classes
F2(w)	PEK_W01 PEK_W02 PEK_W03	average of the grades from tests
P(w)	P=0.1 F1 + 0.9 F2	
F1(L)	PEK_U01 PEK_U02 PEK_U03	activity at the classes
F2(L)	PEK_U01 PEK_U02 PEK_U03	reports from the classes
P(L)	P=0.3 F1 + 0.7 F2	

## PRIMARY AND SECONDARY LITERATURE

### PRIMARY LITERATURE:

- [1] Bartoszek J., Brzykcy G., Wybrane elementy środowiska informatycznego, Wyd. Pol. Poznańskiej, Poznań 1999.
- [2] Biernat J., Architektura komputerów, Oficyna Wyd. Pol. Wrocławskiej, Wrocław 2002.
- [3] Buchanan W., Internet. Wkił, Warszawa, 1999.
- [4] Cieslak K., WINDOWS i sieci komputerowe, Helion, Wrocław 1999.
- [5] Calabria J., Burke D., Kirkland R., Poznaj Microsoft Word 2000 PL, Mikom, Warszawa 2000.
- [6] Dodge M., Podręcznik Microsoft Excel 2000: wersja polska, Wyd. RM, Warszawa 1999.
- [7] Durka P.J., Cyfrowy Świat. Jak To Działa., Adamantan, Warszawa 2004.
- [8] Forte S. i inni, Access 2000: księga eksperta, Helion, Gliwice 2001.
- [9] Nelson S. L., Microsoft PowerPoint 2000 PL: przewodnik od A do Z, Mikom, Warszawa 1999.
- [10] Pikoń K., ABC internetu., Helion, Gliwice 2006.
- [11] Wróblewski P., ABC komputera, Helion, Gliwice 2006.

### SECONDARY LITERATURE:

- [1] Comer D. E., Sieci komputerowe i intersieci., WNT, Warszawa 1999.
- [2] Metzger P., Anatomia PC: architektura komputerów zgodnych z IBM PC. Kompendium, Helion Gliwice 2003.
- [3] Trusewicz M., INTERNET od A do Z., MIKOM, Warszawa 1998.
- [4] Nelson S. L., Microsoft Word 2000 PL: przewodnik od A do Z, Mikom, Warszawa 1999.
- [5] Walkenbach J., Biblia Excel 2000, Wyd. RM, Warszawa 1999
- [6] Nelson S. L., Microsoft Excel 2000 PL: przewodnik od A do Z, Mikom, Warszawa 1999.
- [7] Kuciński K., Poznajemy Accessa 2000: wszystko, co chciałeś wiedzieć o MS ACCESS, ale nie wiedziałeś kogo zapytać, "Edition 2000", Kraków 2000.

## SUBJECT SUPERVISOR

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### MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT INR042501 - Computer Technology AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Electrical Engineering

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)	Subject objectives	Programme content	Teaching tool number
PEK_W01	K1ETK_W14	C.1	Lec1 Lec2	N.1 N.2
PEK_W02	K1ETK_W14	C.1	Lec3 Lec4 Lec5 Lec6 Lec7	N.1 N.2
PEK_W03	K1ETK_W14	C.1	Lec4	N.1 N.2
PEK_U01	K1ETK_U11	C.2	Lab1	N.3
PEK_U02	K1ETK_U11	C.2	Lab2 Lab3 Lab4 Lab5 Lab6 Lab7	N.3 N.4 N.5 N.6 N.7
PEK_U03	K1ETK_U11	C.2	Lab8	N.3 N.8
PEK_K01	K1ETK_K06	C.2	Lec8 Lab1 Lab2 Lab3 Lab4 Lab5 Lab6 Lab7 Lab8	N.3