

DESCRIPTION OF THE COURSES

- Course code: **ARR2501**
- Course title: **COMPUTER TECHNOLOGY**
- Language of the lecturer: **Polish, English**

<i>Course form</i>	<i>Lecture</i>	<i>Classes</i>	<i>Laboratory</i>	<i>Project</i>	<i>Seminar</i>
<i>Number of hours/week*</i>	1		1		
<i>Number of hours/semester*</i>	15		15		
<i>Form of the course completion</i>	Test		Performed laboratory assignments		
<i>ECTS credits</i>	1		1		
<i>Total Student's Workload</i>	30		30		

- Level of the course (basic/advanced): **basic**
- Prerequisites: **None**
- Name, first name and degree of the lecturer/supervisor:
Wilkosz Kazimierz, PhD, DSc./Professor
- Names, first names and degrees of the team's members:
dr. Witold Dzierżanowski,
dr. Kazimierz Herlender,
dr. Anna Kisiel,
dr. Robert Lis,
dr. Mirosław Łabuzek,
dr. Robert Łukomski,
dr. Jarosław Szymańda,
dr. Leszek Woźny,
dr. Ryszard Zacirka.
- Year: **1** Semester: **1**
- Type of the course (obligatory/optional): **obligatory**
- Aims of the course (effects of the course):
 - **expanding knowledge and practical skills in utilisation of basic elements of computer hardware and software, especially under MS Windows operating system,**
 - **use of input-output devices with confidence,**
 - **managing data in the Windows environment on a basic level,**
 - **ability of creation and editing texts on a basic level,**
 - **competence in using spreadsheets and performing engineer analysis,**
 - **competence in creating and managing simple database on a computer,**
 - **competence in creating and formatting graphs/charts,**
 - **competence in using presentation tools on a computer,**

- integration of data from different applications in final documents,
- familiarising with utilisation of computer systems in computer networks,
- understanding health and safety issues as well as some environmental factors involved in using computers,
- understanding of some of the important security and legal issues associated with using computers.
- Form of the teaching (traditional/e-learning): **traditional**
- Course description:
Survey of basic terms, means and methods of information processing. The most important terms of the computer science. The general architecture of computer. Principles of operation of computer. Computer software. Computer networks with paying special attention to Internet. Utilization of computers. Security of computer systems. The basic components of MS Office: text editor, spreadsheet, database management program, presentation graphics program.
- Lecture:

<i>Particular lectures contents</i>	<i>Number of hours</i>
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
2. Computer hardware: processor, computer memory, input/output devices, mass memory.	2
3. Computer software: type of software. operating systems, utility software, graphical interface. Structures and development of computer systems.	2
4. Computer networks: LAN i WAN, Intranet, Extranet, Internet.	2
5. Utilisation of computers: computer in business, services in computer networks (e-Mail, e-commerce).	2
6. Security and health issues: ergonomics, health care, precautions, computers and natural environment. Data security: problems of data security, computer viruses.	2
7. Some of the legal issues: author law, Polish law dealing the protection of personal data.	2
8. Final test.	1

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:
 1. Principles of utilisation of PC: creating a work environment, a desktop environment, managing files, antiviral protection, printing.
 2. Text processing: general principles of use of application, basic operations of text formatting, objects (tables, pictures, images), serial correspondence, printing.
 3. 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, formulae, functions.
 4. Database: general principles of use of application, tables, forms, retrieving information from database, reports, printing.
 5. Presentation and manager graphics: general principles of use of application;

creating presentation including text, pictures, images, charts and diagrams.

6. Services in computer networks: utilization of Internet (e-Mail, WWW browsers, search engine tools).

- Project – the contents:
- Basic literature:
 1. Bartoszek J., Brzykcy G., Wybrane elementy środowiska informatycznego, Poznań, Wyd. Pol. Poznańskiej 1999.
 2. Biernat J., Architektura komputerów, Wrocław, Oficyna Wyd. Pol. Wrocławskiej 2002.
 3. Buchanan W., Internet. Warszawa, WKiŁ 1999.
 4. Cieslak K., WINDOWS i sieci komputerowe. Gliwice, Helion 1999.
 5. Calabria J., Burke D., Kirkland R., Poznaj Microsoft Word 2000 PL, Warszawa, Mikom 2000.
 6. Dodge M., Podręcznik Microsoft Excel 2000: wersja polska, Warszawa, Wyd. RM 1999.
 7. Forte S. i inni, Access 2000: księga eksperta, Gliwice, Helion 2001.
 8. Nelson S. L., Microsoft PowerPoint 2000 PL: przewodnik od A do Z, Warszawa, Mikom 1999.
- Additional literature:
 1. Comer D. E., Sieci komputerowe i intersieci. Warszawa, WNT 1999.
 2. Metzger P., Anatomia PC: architektura komputerów zgodnych z IBM PC. Kompendium Gliwice, Helion 2003.
 3. Trusewicz M., INTERNET od A do Z. Warszawa, MIKOM 1998.
 4. Nelson S. L., Microsoft Word 2000 PL: przewodnik od A do Z, Warszawa, Mikom 1999.
 5. Walkenbach J., Biblia Excel 2000, Warszawa Wyd. RM, 1999
 6. Nelson S. L., Microsoft Excel 2000 PL: przewodnik od A do Z, Warszawa, Mikom 1999.
 7. Kuciński K., Poznajemy Accessa 2000: wszystko, co chciałeś wiedzieć o MS ACCESS, ale nie wiedziałeś kogo zapytać, Kraków, "Edition 2000" 2000.
- Conditions of the course acceptance/credition:

Lectures: positive final test

Laboratory: positive evaluation of all performed assignments

* - depending on a system of studies