

**FACULTY OF COMPUTER SCIENCE AND MANAGEMENT****SUBJECT CARD****Name in Polish Technologie informacyjne****Name in English Information Technology****Main field of study (if applicable): Management****Specialization (if applicable): Organizational Management****Level and form of studies: 1st level, full-time****Kind of subject: obligatory****Subject code IEZ1148****Group of courses NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU)	30		15		
Number of hours of total student workload (CNPS)	60		60		
Form of crediting	crediting with grade		crediting with grade		
For group of courses mark (X) final course					
Number of ECTS points	2		2		
including number of ECTS points for practical (P) classes			2		
including number of ECTS points for direct teacher-student contact (BK) classes	1.0		0.5		

\*delete as applicable

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

None.

**SUBJECT OBJECTIVES**

C1 To acquire knowledge of the tools and methods used to support gathering, processing, analyzing, presenting data and their applications in organizations.

C2 To acquire knowledge of the IT fundamentals, functions and applications of modern IT devices and networks and software..

C3 To acquire knowledge of the threats, security and protecting data and the intellectual property.

C4 To acquire skills in text processing, gathering, analyzing, presenting business data.

C5 To acquire skills in using advanced software tools to support business operations.

**SUBJECT EDUCATIONAL EFFECTS**

relating to knowledge:

PEK\_W01 Knows the appropriate IT tools and methods of text processing and their applications in organizations.

PEK\_W02 Knows the appropriate IT tools and methods of calculating, analyzing, visualization and presenting data and their applications in organizations.

PEK\_W03 Knows the mechanisms of inter-application data exchange and task automation techniques.

PEK\_W04 Understands the principles of operation and functions of the computer hardware and software.

PEK\_W05 Has elementary knowledge of the computer networks and their applications in

organizations.
PEK_W06 Has elementary knowledge of the network, data and intellectual property security and protection.
relating to skills:
PEK_U01 Can use appropriate functions of selected software tools to solve business text processing problems.
PEK_U02 Can use appropriate functions of selected software tools to solve business data calculation, analysis and visualization problems.
PEK_U03 Can use appropriate functions of selected software tools to solve business data integration and presentation problems.
relating to social competences:
PEK_K01 – be able to collaborate and work in a project team.

PROGRAMME CONTENT		
Form of classes - lecture		Number of hours
Lec 1	Introduction	1
Lec 2	Tools and methods of text processing	3
Lec 3	Advanced functions of text processing. Mail merge.	2
Lec 4	Tools and methods used to support data calculating, analysis and visualization.	6
Lec 5	Advanced functions and methods of data analysis in a spreadsheet	2
Lec 6	Tools and techniques of preparing and conducting a business presentation.	1
Lec 7	Exchanging data objects between applications – the OLE technique	1
Lec 8	Automating tasks in Microsoft Office	1
Lec 9	Overview of the IT fundamentals. Basic terms. Data vs. information. History, generations and types of computers.	2
Lec 10	The digital technology. Data encoding and binary system.	2
Lec 11	Operating systems and file systems. Virtual machines and remote computing.	1
Lec 12	Telecommunications, computer networks and the Internet. Web browsers.	2
Lec 13	Applications and cloud computing. E-commerce and hosting services.	1
Lec 14	Intellectual property and copyright issues. File sharing and computer piracy.	1
Lec 15	Network, systems and data security.	2
Lec 16	Grading, remarks and conclusions.	2
	Total hours	<b>30</b>
Form of classes - laboratory		Number of hours
Lab 1	Introduction to the subject, the computer lab environment and safety rules.	1
Lab 2	Tools and methods of text processing.	4

Lab 3	Advanced functions and methods of data gathering, analysis and visualization in a spreadsheet.	6
Lab 4	Tools and techniques of preparing and conducting a business presentation (alternatively: cloud services)	2
Lab 5	Failed assignments retake and final remarks.	2
	Total hours	<b>15</b>

### TEACHING TOOLS USED

N1. Traditional lecture with overhead slides  
N2. Demonstration of selected features and functions of software tools using a PC and an overhead projector  
N3. Short movies demonstrating selected features of software tools  
N4. Assignments to carry out individually in the computer lab  
N5. Discussion of the achievements (causes of failures if applicable) during each presentation of students' results

### EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT

<b>Evaluation</b> (F – forming (during semester), P – concluding (at semester end))	Educational effect number	Way of evaluating educational effect achievement
F1	PEK_W01–PEK_W06	Answers to questions (written or at a computer)
F2	PEK_W01–PEK_W06	Lecture attendance (bonus credits)
F3	PEK_U01–PEK_U03	Assessment of the tasks carried out
F4	PEK_U01–PEK_U03	Assessment of the understanding of the solutions
F5	PEK_U01–PEK_U03	Lab class attendance

Lecture:  $P = F1 + F2$

Laboratory:  $P = F3 + F4 + F5$

### PRIMARY AND SECONDARY LITERATURE

#### **PRIMARY LITERATURE:**

- [1] Stair R., Reynolds G., Principles of Information Systems, Course Technology, 2013.
- [2] Chaffey D., White G., Business information management: improving performance using information systems, Pearson Education, 2011.
- [3] Stallings W., Case T., Business data communications: infrastructure, networking and security, Pearson, 2013.
- [4] Kizza J.M., Guide to Computer Network Security, Springer, 2013.
- [5] VanHuss S.H., Forde C.M., Woo D.L., Advanced Word Processing, South Western Educ Pub, 2010.
- [6] Grus J., Thinking Spreadsheet: An Opinionated Guide to Problem Solving and Data Analysis Using Microsoft Excel (or Your Favorite Alternative), Brightwalton, 2011.

#### **SECONDARY LITERATURE:**

- [1] Weixel S., Wempen ., Learning Microsoft Office 2010. Advanced Student Edition, Prentice Hall 2010.
- [2] Laudon K.C., Jane P. Laudon J.P., Management information systems: managing the digital firm, Pearson Education, 2012.
- [3] Oates B.J., Researching information systems and computing, Sage, 2012.

#### **SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)**

**Wiesław Dobrowolski, wieslaw.dobrowolski@pwr.wroc.pl**

**MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
Information Technology  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY Management  
AND SPECIALIZATION Organizational Management**

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	K1_ZARZ_W24, K1_ZARZ_W25	C1	Wy2, Wy3	N1, N2
PEK_W02	K1_ZARZ_W24, K1_ZARZ_W25	C1	Wy4–Wy6	N1, N2
PEK_W03	K1_ZARZ_W24, K1_ZARZ_W25	C1	Wy7, Wy8	N1, N2
PEK_W04	K1_ZARZ_W24,	C2	Wy9–Wy11	N1
PEK_W05	K1_ZARZ_W24,	C2	Wy12, Wy13	N1, N3
PEK_W06	K1_ZARZ_W04, K1_ZARZ_W24	C3	Wy14, Wy15	N1, N3
PEK_U01	K1_ZARZ_U12	C4, C5	La2	N4, N5
PEK_U02	K1_ZARZ_U12	C4, C5	La3	N4, N5
PEK_U03	K1_ZARZ_U12	C4, C5	La4	N4, N5
PEK_K01	K1-ZARZ_K02	C4, C5	La2, La3, La4	N4, N5

\*\* - enter symbols for main-field-of-study/specialization educational effects

\*\*\* - from table above