



MODULE DESCRIPTION

Module code	full-time studies:	Z-ZIP1-E-724
	part-time studies:	Z-ZIPN1-E-724
Module name	Współczesne systemy komputerowe	
Module name in Polish	PC Hardware	
Valid from academic year	2019/2020	

MODULE PLACEMENT IN THE SYLLABUS

Field of study	MANAGEMENT AND PRODUCTION ENGINEERING
Level of education	1st degree
Studies profile	General
Form and method of conducting classes	Full-time and Part-time
Specialisation	Computer Science for Management and Modelling
Unit conducting the module	Department of Computer Science Technologies
Module co-ordinator	Sławomir Koczubiej, PhD
Approved by:	

MODULE OVERVIEW

Type of subject / group of subjects	Specialist subject
Module status	Non-compulsory
Language of conducting classes	English
Module placement in the syllabus - semester	Semester VII
Initial requirements	Information Technologies Fundamentals of Computer Science
Examination (YES/NO)	NO
Number of ECTS credit points	2

Method of conducting classes		Lecture	Classes	Laboratory	Project	Other
Per semester	full-time studies:	15		15		
	part-time studies:	9		9		

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Category	Symbol	Learning outcomes	Assignations to the directional learning outcomes
Knowledge	W01	A student has knowledge of the structure and architecture of a computer, hierarchy and organization of memory. He knows the terms: interrupts, exception, bus, input-output circuit.	ZIP1_W04
	W02	A student knows the methods of data representation used in computer systems.	ZIP1_W05
	W03	A student knows the structure of the operating system. He knows and understands the principle of operation of the operating system. Understands problems related to the execution of programs.	ZIP1_W04
Skills	U01	A student is able to assess the possibilities of modern hardware solutions and evaluate the existing hardware solutions.	ZIP1_U03
	U02	A student is able to install and configure the selected operating system. He can administer the operating system and install the necessary software.	ZIP1_U07
	U03	A student is able to take care of the security of computer systems. He can archive data.	ZIP1_U07
Social competences	K01	A student understands the need for constant replenishment of knowledge. Has competences in the use of Internet resources for self-education.	ZIP1_K01
	K02	He can work in a team.	ZIP1_K04

TEACHING CONTENTS

Method of conducting classes	Teaching contents
Lecture	Introduction. Computer structure and architecture. Architecture and organization of memory. Data and their representation. Program model and computer utility structure. Computer resources. Contemporary computer architectures. Operating system, definition, tasks, classification. Construction of the operating system, processes. File systems and types. File operations. Virtualization. Features of selected modern operating systems.
Laboratory	Virtualization software. Installation of the operating system. Initial operating system configuration. Files, directories, access rights, file search. Installing the software. Archiving. User and disk resource management. Start the operating system. Process and service management. Monitoring the operating system. Automation.

METHODS OF ASSESSING TEACHING RESULTS

Symbol	Methods of checking the learning outcomes <i>(select X)</i>					
	Oral exam	Written exam	Test	Project	Statement	Other
W01			X			
W02			X			
W03			X			
U01			X		X	
U02			X		X	
U03			X		X	
K01			X		X	
K02					X	

FORM AND CONDITIONS OF PASSING

Form of classes	Form of credit	Passing conditions
Lecture	Credit with grade	Obtaining a credit for laboratory classes, active participation in lectures.
Laboratory	Credit with grade	Obtaining at least 50% of tests, active participation in laboratory classes.

STUDENT WORKLOAD

Balance of ECTS points												
No.	Type of student's activity	Student's workload										Unit
		full-time					part-time					
		Lc	C	Lb	P	O	Lc	C	Lb	P	O	
1.	Participation in the activities	15		15			9		9			h
2.	Other (consultation, exam)	2		2			2		2			h
3.	Number of hours of a student's as- sisted work	34					22					h
4.	Number of ECTS credit points which are allocated for assisted work	1,4					0,9					ECTS
5.	Number of hours of a student's un- assisted work	16					28					h
6.	Number of ECTS credit points which a student receives for unassisted work	0,6					1,1					ECTS
7.	Work input connected with practical classes	25					25					h
8.	Number of ECTS credit points which a student receives for practical classes	1,0					1,0					ECTS
9.	Total number of hours of a stu- dent's work	50					50					h
10.	Punkty ECTS za moduł <i>1 ECTS=25 hours</i>	2										ECTS

LITERATURE

1. Grzywak A. (red.) (2000), *Budowa i projektowanie komputerów*, Wydawnictwo Politechniki Śląskiej, Gliwice.
2. Stallings W. (2004), *Organizacja i architektura systemu komputerowego*, Wydawnictwo Naukowo Techniczne, Warszawa.
3. Biernat J. (2005), *Architektura komputerów*, Oficyna Wydawnicza Politechniki Wrocławskiej, Wrocław.
4. Stencel K. (2004), *Systemy operacyjne*, Wydawnictwo PJWSTK, Warszawa.
5. Negus C. (2011), *Linux. Biblia. Ubuntu, Fedora, Debian i 15 innych dystrybucji*, Wydawnictwo Helion, Gliwice.
6. Ward B. (2005), *Jak działa Linux*, Wydawnictwo Helion, Gliwice.
7. McCallister M. (2006), *SUSE Linux 10. Księga eksperta*, Wydawnictwo Helion, Gliwice.
8. Camou M, Goerzen J, Van Couwenberghe A. (2011), *Debian Linux. Księga eksperta*. Wydawnictwo Helion, Gliwice.