



Subject card

Subject name and code	Architecture and management of operating systems, PG_00037348						
Field of study	Technical Physics						
Date of commencement of studies	October 2021		Academic year of realisation of subject		2023/2024		
Education level	first-cycle studies		Subject group		Optional subject group Subject group related to scientific research in the field of study		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Theoretical Physics and Quantum Information -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. arch. Jan Kozicki				
	Teachers		dr hab. inż. arch. Jan Kozicki				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	45		5.0		50.0	100
Subject objectives	The goal of this course is to familiarise the students with basic topics concerning structure of Linux operating system, its functions and process management methods. Additionally the goal is to present the capabilities of script languages built into Linux and teaching students to use them.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_U02		student can solve basic Linux tasks such as installation or recompilation of a package or working with basic Linux software.		[SU2] Assessment of ability to analyse information		
	K6_W05		student has fundamental knowledge of working with Linux.		[SW1] Assessment of factual knowledge		
Subject contents	<ul style="list-style-type: none">1. installing linux 3h,2. window managers 3h,3. configuring linux, /etc dir 3h,4. gnuplot 3h,5. latex 3h,6. bash scripts, /etc dir 3h,7. recompiling packages 3h,8. awk scripts, sed, grep 3h,9. program htop 3h,10. linux GUI 3h,11. git status in shell 3h,12. zsh scripts, git-status and git-cal 3h,13. cron 3h,14. rsnapshot and rsync 3h,15. mdadm 3h,16. vim 3h17. regexp 3h,18. cryptocurrencies: mining and blockchain 3h						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	laboratory		50.0%		100.0%		

Recommended reading	Basic literature	<ul style="list-style-type: none"> • [1] Carla Schroder "Linux Cookbook: Essential Skills for Linux Users" • [2] Dennis Matotek, James Turnbull, Peter Lieverdink "Pro Linux System Administration: Learn to Build Systems for Your Business Using Free and Open Source Software" • [3] Evi Nemeth, Garth Snyder, Trent R. Hein, Ben Whaley, Dan Mackin "UNIX and Linux System Administration Handbook (5th Edition)"
	Supplementary literature	None.
	eResources addresses	Adresy na platformie eNauczanie: Arch. i administracja systemów operacyjnych 2023/2024 - Moodle ID: 35626 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=35626
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	