

## OPERATING SYSTEMS

Title of Study Programme and Code		Type (compulsory/optional)	Cycle	Year of study when the component is delivered (if applicable)
Information Systems Engineering 6531EX043		Compulsory	1 <sup>st</sup>	2 <sup>nd</sup> year
Semester/trimester when the component is delivered		Number of ECTS credits allocated	Language of instruction	Mode of delivery (face-to-face/e-learning/...)
4 <sup>th</sup>		3 ECTS	English	face-to-face
Learning outcomes			Study methods	Assessment methods
After completion of the study subject, a student should be able to:			Lectures; Explanation of concepts; Analysis of problems solved; Individual solution of problems; Group tasks.	Written Exam; Tests; Defence of individual homework.
<b>LO 1</b>	Know the computer processes, purpose of operating systems, principles of work, operating systems functions.			
<b>LO 2</b>	Gather, systematize and analyze information about the organization's information technology.			
<b>LO 3</b>	Provide offers on effective use of information technology.			
<b>LO 4</b>	Know the requirements of the software, select, install and implement user-driven software.			
<b>LO 5</b>	Install and adjust the user system and application software.			
<b>LO 6</b>	Identify risks of operating system security and their vulnerabilities and apply security and vulnerability prevention measures.			
<b>LO 7</b>	Understand computer systems resource management.			
<b>LO 8</b>	Understand and apply protection of information resources.			
<b>LO 9</b>	Recognize and address emerging computer network software problems.			
<b>LO 10</b>	To set network settings on various operating system.			
<b>LO 11</b>	Able in computer systems and their development core.			
<b>LO 12</b>	Adapt the system and application software according to specific requirements.			

<b>Prerequisites</b> <b>(these courses must be successfully completed prior to taking this particular course)</b>		
Courses of Informatics		
<b>Course content</b>		
<ol style="list-style-type: none"> <li>1. Review of operating systems.</li> <li>2. Multicomputer, multiprocessor and real-time systems.</li> <li>3. Processes.</li> <li>4. Memory management.</li> <li>5. Input and output system.</li> <li>6. File systems.</li> <li>7. Installing of operating systems.</li> <li>8. Registering users.</li> <li>9. Development network of operating system.</li> <li>10. Security of operating systems. Anti-attack mode. Safety assessment standards.</li> <li>11. Modernization of operating systems.</li> </ol>		
<b>Recommended or required reading and other learning resources/tools</b>		
<ol style="list-style-type: none"> <li>1. Tanenbaum Andrew S. (2007). Distributed Operating Systems ( p.1 – 34, 169 – 245) Prentice-Hall.</li> <li>2. Tanenbaum Andrew S. (2002). Modern Operating Systems (p. 22 – 44, 97 – 106, 217 – 235, 642 - 728) Prentice-Hall.</li> <li>3. Operating systems, their management and a variety. Available at: <a href="http://sistemas.puolapiai.lt">http://sistemas.puolapiai.lt</a></li> </ol>		