

DISCIPLINE DESCRIPTION

Operating systems (OS)

1	Specialized module	Operating systems (OS)
2	Specialty	1-26 03 01 "Information Resources Management"
3	Course of Study	1
4	Semester	2
5	Credit units	3
6	Degree, title, full name of lecturers	PhD in Engineering Sciences, Associate Professor Serebryanaya L.
7	Objectives	Acknowledgment with the capabilities and limitations of modern computer systems; principles of operation of processors of specified architectures; organizing the interaction of the processor with other nodes of a modern computer; principles of operation of multitasking operating systems. Development of skills and abilities to work with modern computer systems.
8	Prerequisites	Operating system, processor .architecture
9	Syllabus	This discipline studies the architecture of modern computer systems, mechanisms and principles of operating systems functioning. As a result of studying the discipline, students must: <i>know</i> : <ul style="list-style-type: none"> - purpose, functions and structure of the operating system (OS), the computer system architecture; - the concept of process and flow, principles of process control, processes planning and scheduling; - ways of interaction between processes in Windows, UNIX / Linux; - the concept of a resource, types of resources, resources management; - tasks to be solved when managing virtual memory; - modern file systems; - mechanisms for ensuring the security of operating systems; - the main types of computer systems architecture, the principles of their construction and functioning; <i>be able to</i> : <ul style="list-style-type: none"> - use the acquired knowledge of operating systems to work in the field of information resources

		management; - evaluate and justify the choice of the operating system in accordance with the specified requirements for information resources management; - work in Windows and UNIX / Linux OS; - to provide a safe operating mode of the OS.
10	References	1. Таненбаум, Э. Современные операционные системы / Э. Таненбаум. - СПб.: Питер, 2019. - 1120 с. 2. Дроздов, С.Н. Операционные системы: Учебное пособие / С.Н. Дроздов. - Рн/Д: Феникс, 2018. - 480 с. 3. Матросов, В.Л. Операционные системы, сети и интернет-технологии: Учебник / В.Л. Матросов. - М.: Academia, 2017. - 1040 с.
11	Teaching Methods	Explanatory-illustrative, reproductive, partial-research, comparative, problematic, dialogue-heuristic, research, generalizing, analytical.
12	Tuition Language	Russian