COURSE DESCRIPTION

COURSE NAME	**DISTRIBUTED OPERATING SYSTEMS**	CODE: MSD2103

STUDY YEAR	MASTER II	SEMESTER	1	COURSE STATUS (**C**-compulsory/**OP**-optional/**F**-facultative)	C

HOURS PER WEEK				TOTAL HOURS PER SEMESTER	TOTAL HOURS INDIVIDUAL ACTIVITY	CREDITS	EVALUATION (**P**-during the semester, **C**-oral examination, **E**-written examination, **M**-mixed)	TEACHING LANGUAGE
C	S	L	Pr.					
2	-	2	-	56	184	8	M	English

COURSE TEACHER	TEACHING AND SCIENTIFIC DEGREE, FIRST NAME, LAST NAME	DEPARTMENT
	LECT. DR. CRISTIAN VIDRAŞCU	Computer Science

PREVIOUS COURSES REQUESTED	Operating Systems

OBJECTIVES	Understanding the fundamental concepts on distributed systems. Getting acquainted with the design principles of distributed operating systems.
GENERAL DESCRIPTION	Distributed systems - classification and goals. Communication and synchronization. Process management. Process and thread scheduling. Processor allocation. Memory structure. Coherence and consistency. Implementation of distributed memory. Distributed file systems. Security of distributed operating systems. Basic OS Security Mechanisms. Security Policies. Logging, Auditing, and Recovery. OS-level Memory Protection. Vulnerability Analysis. Advanced Topics (malware, rootkits, botnets).
DESCRIPTION OF SEMINARY / LABORATORY WORKS	Design and implementation of distributed operating systems.
TEACHING METHODS	Exposition, debate, problem-solving, case studies, exercises.

BIBLIOGRAPHY (SELECTION)	A. Tanenbaum, *Distributed Operating Systems*, Prentice Hall, 1995. J. L. Hennessy, D. A. Patterson, *Computer Architecture - A Quantitative Approach*, Morgan Kaufmann Publishers, 1990. R. W. Hockney, C. R. Jesshope, *Parallel Computers 2*, IOP Publishing, 1988. A. Tanenbaum, *Structured Computer Organization*, Prentice Hall, 1999.

EVALUATION		
	conditions	The presence at the laboratory activities.
	criteria	A total of at least 4 points as the final result.
	evaluation methods	Written test (WT) from the course subject matter, during the 16th week. Laboratory work – lab assigments (LA).
	final result - formula	Final result = WT/3+LA*2/3, on which Gauss distribution is applied.