

Program	Level	Second cycle					
	Name of the program	Theoretical Computer Science, Applied Mathematics					
COURSE							
Course title	Distributed Algorithms						
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)			
CS 527	II	Elective course	7	3+0+2			
Lecturer							
Course Goals	The aim of the course is to acquaint the student with the basic principles of distributed algorithms.						
Learning Outcomes	After successfully completing the course, the student will: - Master the basic techniques needed for developing distributed algorithms; - Learn to apply knowledge from previous algorithmic courses to problems that occur in distributed systems						
COURSE CONTENT							
<ul style="list-style-type: none"> - Introduction to distributed computing - Graph vertices colouring - Algorithms on trees - Selecting the leader in the graph - Distributed sorting - Memory and objects in distributed systems - Synchronization - Wireless protocols 							
LITERATURE							
[1] David Peleg, Distributed Computing: A Locality-Sensitive Approach, SIAM (2000) [2] Hagit Attiya, Jennifer Welch, Distributed Computing: Fundamentals, Simulations and Advanced Topics, McGraw-Hill Publishing, 1998 [3] Juraj Hromkovic, Ralf Klasing, Andrzej Pelc, Peter Ruzicka, Walter Unger, Dissemination of Information in Communication Networks, Springer-Verlag, Berlin Heidelberg, 2005							
STUDENT WORKLOAD (hours in a semester)							
Lectures	45	Exercises	30	Individual work	100	T o t a l	175
GRADING				REMARKS			
Criterion	Maximum points	Minimum points					
Midterm exams	50	25					
Final exam	50	25					
Total	100	55					