

1.	Course title	Distributed computer systems		
2.	Course code	CSEW513		
3.	Study program	FCSE – ICE - ASI		
4.	Unit offering the course	FCSE		
5.	Undergraduate/postgraduate/PhD	Undergraduate		
6.	Year/semester 4/winter	7. ECTS: 6		
8.	Teacher(s)	dr. Vladimir Trajkovic, dr. Sonja Gievska, dr. Sonja Filipovska, dr. Anastas Mishev, dr. Dejan Spasov, dr. Vesna Dimitrova, dr. Boro Jakimovski, dr. Igor Mishkovski		
9.	Course prerequisites			
10.	Goals (competences): The aim of the course is to provide introductory knowledge on selected topics in the field of distributed computer systems. Students will be introduced to state-of-the-art distributed system architectures with a special focus on the inter-process communications (IPC) in distributed computer systems. Students will learn and acquire a deeper understanding of the challenges and approaches in designing distributed computer systems and with the provided assignments they will be trained to developed practical skills for implementing client-server-based distributed applications using the current IPC technologies.			
11.	Course content: Distributed system architectures. The protocols and platforms for developing inter-process communications. Internet communication protocols. Models and paradigms for distributed communications. Middleware platforms (CORBA, JavaBeans, DCOM, .NET). Multi-agent systems for distributed computer systems. The place of Web-based technologies in distributed systems architectures.			
12.	Teaching methods: lectures with presentations, interactive lectures, lab classes, exercises, team work, invited guest lectures, student projects and homework			
13.	Total available time	6 ECTS x 30 = 180 hours		
14.	Distribution of the available time	30 + 45 + 30 + 60 +15 = 180		
15.	Teaching activities	15.1.	Lectures	30 hours
		15.2.	Training (labs, problem solving), seminar and team work	45 hours
16.	Other activities	16.1.	Project work	30 hours
		16.2.	Self study	60 hours
		16.3.	Home work	15 hours
17.	Grading			
	17.1.	Tests		80 points
	17.2.	Seminar work/project (written or oral presentation)		15 points

	17.3.	Active participation			5 points	
18.	Grading criteria		to 50 points		5 (five) (F)	
			from 61 to 60 points		6 (six) (E)	
			from 61 to 70 points		7 (seven) (D)	
			from 71 to 80 points		8 (eight) (C)	
			from 81 to 90 points		9 (nine) (B)	
			from 91 to 100 points		10 (ten) (A)	
19.	Final exam prerequisites		Completed 15.1 and 15.2			
20.	Course language		Macedonian and English			
21.	Quality assurance methods		Internal evaluations and surveys			
22.	Literature					
	22.1.	Compulsory				
		No.	Authors	Title	Publisher	Year
		1.	A.S. Tanenbaum, M.V. Steen	Distributed Systems: Principles and Paradigms	Prentice Hall	2002
		2.	R.W. Stevens	UNIX Network Programming, 2nd edition	Prentice Hall	1998
		3.	E. Harold	Java Network Programming, 3rd Edition	O'Reilly Media	2004
	22.2.	Mandatory				
		No.	Authors	Title	Publisher	Year
		1.	Z. Tari, O. Bukhres	Fundamentals of Distributed Object Systems: The CORBA Perspective	John Wiley & Sons	2001
		2.				
	3.					