

Course syllabus for First cycle studies					
1.	Course title	Surfactants			
2.	Code	CDE7E12			
3.	Study Program	Clothing Design and Engineering			
4.	Study program organizer (unit, institute, department, division)	Faculty of Technology and Metallurgy, Institute of Textile Engineering			
5.	Degree (first, second, third cycle)	First			
6.	Academic year / semester	2 year 3 semester	7.	Number of ECTS	5
8.	Instructors	Prof. Dr. Igor Jordanov			
9.	Prerequisites for course enrollment	Pre-treatment and finishing of textiles and clothing (verified)			
10.	<b>Objectives of the course syllabus (competences):</b> Introduction to surfactants and their application. <b>Acquired skills (competences):</b>				
11.	<b>Content of the course:</b> Chemical structure of surfactants, classification, adsorption properties, micelle formation and critical micellar concentration, solubilization, soaking, foaming, emulsification, washing and application in the textile industry as auxiliary agents in the production of chemical fibers, preparation, dyeing and finishing of textile products.				
12.	<b>Study methods:</b> lectures and consultations, laboratory exercises, homework, home study (exam preparation)				
13.	Total available time	90			
14.	Allocation of available time				
15.	Teaching activities	15.1.	Lectures theoretical teaching	30	
		15.2.	Exercises ( laboratory, numerical, seminars, teamwork)	15	
16.	Other types of activities	16.1.	Projects		
		16.2.	Independent tasks		
		16.3.	Homework and self-learning	45	

17.	<b>Grading system</b>					
	17.1.	Test			80 points	
	17.2.	Successfully realized laboratory/auditory exercises			10 points	
	17.3.	Individual work/homework			5 points	
	17.4	Participation			5 points	
18.	<b>Grading criteria (points/grade)</b>	Up to 61 points			5 (five) (F)	
		From 61 to 69 points			6 (six) (E)	
		From 70 to 79 points			7 (seven) (D)	
		from 80 to 89 points			8 (eight) (S)	
		From 90 to 95 points			9 (nine) (B)	
		from 95 to 100 points			10 (ten) (A)	
19.	<b>Prerequisites for taking the final exam</b>		11 points minimum from 17.2 – 17.4			
20.	<b>Language in which lectures are conducted</b>		English			
21.	<b>Method for monitoring the quality of lectures</b>		Survey			
22.	<b>LITERATURE</b>					
	22.1.	Compulsory literature				
		No.	Author	Title	Publisher	Year
		1.	M. Rosen	Surfactants and Interfacial Phenomena	John Wiley & Sons	1989
		2.				
		3.				
	22.2.	Additional literature				
		No.	Author	Title	Publisher	Year
		1.	Drew Myers	Surfactant Science and Technology	John Wiley & Sons, Inc.	2020
		2.				
3.						