

Add. 3		Course program for the first, second and third level (cycle) of studies				
1.	Course title	Regulation of hydraulic machines and systems				
2.	Code	287				
3.	Study group(s)	HEWM, EE				
4.	The organizer of the study program (unit, institute, department)	Faculty of Mechanical Engineering - Skopje, Ss. Cyril and Methodius University in Skopje				
5.	Level (first, second, third)	First				
6.	Academic year / semester	summer	7.	ECTS credits	6	
8.	Instructor	Prof. d-r Zvonimir Kostik				
9.	Prerequisites	Hydraulic volume machines - passed Basics of turbomaschines - passed Hydraulic turbines - signature				
10.	Course objectives (competences): Design and use of turbo pumps, water turbines and volume machines regulation systems, and hydrostatic energy transfers.					
11.	Course content: Getting familiar with the basic terms and turbo pumps, water turbines and volume machines regulation principles, hydro energetic systems and hydrostatic energy transfers.					
12.	Study methods: Interactive lectures, practice, individual assignments, self learning.					
13.	Total hours	6 ECTS x 30 classes = 180 classes				
14.	Hours allocation per activity:	30 + 30 + 0 + 20 + 100 = 180 classes				
15.	Lectures/Lab	15.1.	Lectures	30 classes		
		15.2.	Lab (student work)	30 classes		
16.	Project Work/Assignments	16.1.	Project assignments	0 classes		
		16.2.	Individual assignments	20 classes		
		16.3.	Self-study	100 classes		
17.	Points/Marks:					
	17.1.	Tests	80 points			
	17.2.	Projects	0 points			
	17.3.	Attendance	10 + 10 points			
18.	Grading scale	Under 50		5 (five) (F)		
		51 - 60 points		6 (six) (E)		
		61 - 70 points		7 (seven) (D)		
		71 - 80 points		8 (eight) (C)		
		81 - 90 points		9 (nine) (B)		
		91 - 100 points		10 (ten) (A)		
19.	Prerequisites for taking the final exam	None				
20.	Language of Instruction	Macedonian				
21.	Course evaluation	Student questionnaire				
22.	Textbooks					
	22.1.	Instruction materials				
		No.	Author	Title	Publisher	Year
		1.	M. Kalovik	Регулација на електроенергетски системи	Белград	1997
		2.	З.Костиќ	Хидромашинска опрема	Скрипта, МФС	2002
22.2.	Supplemental Instruction Materials					

	No.	Author	Title	Publisher	Year
	1.	З. Костик	Хидраулични машини и уреди	Скрипта, МФС	1992
	2.	А. Ношпал	Хидраулични волуменски машини	МФС	1974