

Add. 3		Course program for the second level (second cycle - postgraduate) of studies				
1.	Course title	Eco engines				
2.	Code	1M6SEE04				
3.	Study group(s)	SEE				
4.	The organizer of the study program (unit, institute, department)	"Ss. Cyril and Methodius" University in Skopje, Faculty of Mechanical Engineering - Skopje				
5.	Level (first, second, third degree)	Second				
6.	Academic year / semester	V / summer	7.	ECTS credits	6	
8.	Professor	Prof. d-r Mile Dimitrovski				
9.	Prerequisites for enrolling the course	None				
10.	Course objectives (competences): Analytical approach to combustion in IC engines improving performances of engines, measuring in engines. Understanding hybrid technologies, alternative fuels for IC engines end characteristics.					
11.	Course content: Learning the contemporary models of eco engines, hybrid motor system, engines on gaseous fuels, bio fuels and new fuels. Interaction between engine construction and alternative fuels.					
12.	Study methods: Interactive lectures, auditory and/or laboratory practice, selfrunning and/or team work on project assignments, selfrunning assignments					
13.	Total hours	6 ECTS x 30 = 180 hours				
14.	Hours allocation per activity:	30 + 30 + 30 + 30 + 60 =180 hours				
15.	Lectures/Lab	15.1.	Lectures (15 weeks x 2)	30		
		15.2.	Lab (student work)	30		
16.	Project Work/Assignments	16.1.	Project assignments	30		
		16.2.	Individual assignments	30		
		16.3.	Self-study	60		
17.	Points/Marks:					
	17.1.	Exams			50	
	17.2.	Projects			45	
	17.3.	Attendance			5	
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	Presented projects				
20.	Language	English				
21.	Course evaluation	Student questionnaire				
22.	Textbooks					
	22.1	Instruction materials				
		No.	Author	Title	Publisher	Year

		1.	Mile Dimitrovski	ECO Engines	Internal issue	2008
		2.	Handbook of Air Pollution from Internal Combustion Engines: Pollutant Formation and Control	Eran Sher	Academic Press	1998
		3.	Transport and the environment	R. E. Hester, R. M. Harrison	RS.C advanced chemical science	2006
	22.2	Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
		1.	The biodiesel handbook	Van Gerpen, Knothe and others	AOCS Press, Illinois	2005