

Add. 3		Course program for the first, second and third degree of studies				
1.	Course title	Eco-Design				
2.	Code	143				
3.	Study group(s)	Industrial design (IND)				
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	2/IV	7.	Number of ECTS credits	6	
8.	Instructor	Prof. Dr. Tatjana Kandikjan				
9.	Prerequisites	1. Design Process 2.				
10.	Course objectives (competences): Study of the methods and tools for designing sustainable products. Eco-design guidelines and solutions.					
11.	Course content: Environmental footprint of the phases of the product life-cycle. Design for the environment. Life-cycle assessment. Materials and embodied energy. Recovery opportunities and strategies. Recycling processes. EU waste and eco-directives and outlook. Eco-labeling. Eco-design guidelines. New approaches in eco-design. Analysis of eco-design solutions in electronics, energy efficiency, lighting, consumer products, furniture and recreation equipment.					
12.	Study methods: interactive lectures, auditory practice and/or laboratory practice, self running and/or team work projects, self learning					
13.	Total hours	180 hours				
14.	Hours allocation per activity:	28+28+80+44=180				
15.	Lectures/Lab	15.1.	Teaching lectures	28 hours		
		15.2.	Practice, seminars, team work	28 hours		
16.	Project Work/Assignments	16.1.	Project assignments	80 hours		
		16.2.	Selfrunning assignments			
		16.3.	Home studying	44 hours		
17.	Points/Marks:					
	17.1.	Tests			50 points	
	17.2.	Projects			40 points	
	17.3.	Attendance			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	All project assignments completed and at least 16 points from projects earned.				
20.	Language of Instruction	Macedonian				
21.	Course evaluation	Student questionnaire				
22.	Textbooks					
	22.1.	Instruction materials				
		No.	Author	Title	Publisher	Year

		1.	T. Kandikjan	Eco-design	Lecture notes	2011
		2.				
		3.				
	22.2.	Supplemental Instruction Materials				
		No.	Author	Title	Publisher	Year
		1.	F. Giudice, G. La Rosa, A. Risitano	Product Design for the Environment: A Life Cycle Approach	CRC Press	2006
		2.	D. Reis	Product Design in the Sustainable Era	Tashen	2010
		3.	A. Fuad-Luke	Ecodesign: The Sourcebook	Chronicle Books	2010