

SYLLABUS

Basic data of the subject			
Faculty:	Faculty of Engineering and Informatics		
Title of the subject:	Product Design and Development		
Level:	Bachelor		
Course Status:	Core		
Year of studies:	3		
Number of hours per week:	3		
Value of Credits - ECTS:	4		
Time / location:			
Course lecturer:	Prof.dr. Bujar Pira		
Contact details:	bujar.pira@ushaf.net		
Course Description			
	<i>Product Design represents an integration of product management and development with technical and artistic product design skills. During this course students will be confronted with the analysis and evaluation of designs, design principles, as well as the application of the Solid Works program for the design and animation of product functions.</i>		
Objectives of the course:			
	<i>This module aims to provide new knowledge of the process of creating plastic products, product combination and its principles of establishment, modeling and product form design.</i>		
Expected learning outcomes:			
	<p><i>Upon successful completion of this subject, students will be able to:</i></p> <ul style="list-style-type: none"> • <i>understand the methodology of product design and development</i> • <i>meet the needs of users with the technology available to them</i> • <i>apply the Solid Works program to product design</i> • <i>understand the product economy as well as ergonomic, aesthetic and marketing requirements.</i> 		
Contribution to the student load (which must correspond with learning outcomes)			
Activity	Hour	Day/Week	In total
Lectures with lab tutorials	3	15	45
Internship			
Contacts with teacher / consultations	1	5	5
Field exercises			
Midterm, seminars and projects.	20		20
Homework	1	15	15
Self-learning time student (at the library or at home)	1	15	15
Final preparation for the exam			
Time spent on evaluation (tests, quiz and final exam)			

Projects and presentations.	1	3	3
Total			103

Teaching methodology:	<i>Lectures and exercises combined with tutorials, computer lab work and classroom exercises</i>
Assessment methods:	<i>Course work 80% Presentation 20%</i>

Literature	
Basic Literature:	<i>1. Handouts provided by the lecturer</i>
Additional Literature:	<i>2. Product Design and Development by Karl T. Ulrich and Steven D. Eppinger, 5th Edition 2011 3. Integrated product and process design and development, E.M. Magrab, B. Ration, CRC Press 1997 4. Product Design. Techniques in reverse engineering and new product development, Prentice Hall, 2001</i>

Designed learning plan	
Week:	Lectures and exercises to be held
Week one:	<i>Product design cycle</i>
Week two:	<i>Product design methodology</i>
Week three:	<i>Variety of products and the principles of their formation</i>
Week four:	<i>Identifying customer needs</i>
Week five:	<i>Market research</i>
Week six:	<i>Product model modeling and design</i>
Week seven:	<i>Reflection/consultations</i>
Week eight:	<i>Industrial design and the human factor</i>
Week nine:	<i>Cost analysis</i>
Week ten:	<i>Product management</i>
Week eleven:	<i>Software application in design</i>
Week twelve:	<i>Solid Works I</i>
Week thirteen:	<i>Solid Works II</i>
Week fourteen:	<i>Presentations</i>
Week fifteen:	<i>Presentations</i>

Academic policies and rules of conduct
<i>Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.</i>