Basic data of the subject	
Academic Unit:	**Faculty of Architecture of Interior and Furniture Design**
Program:	**Interior Architecture and Furniture Design**
Subject title:	**Product Design**
Study level:	**Bachelor**
Subject status:	**Mandatory**
Years of study:	**III**
Number of hours per week:	**3**
Value of credits – ECTS:	**5**
Lecturer of the subject:	
Contact details:	
Subject description:	The course deals with the basic concepts of product design, where are addressed the processes of product development and organization; problem identification opportunities; product planning; identifying customer needs; product specifications, generation, selection and testing. The course will also address the practical design of the product from design to final product. The software learned will be used for the product design. The designed product will be printed on 3D printers or through productio machinery. The products will be scanned with 3D scanners and then will be intervened by software programs to change the shape.
Purpose of subject:	The course aims to equip students with the necessary knowledge about the steps taken in order to design a product by following step by step all the stages from the problem identification to the final product. The course also aims to intervene in finished products through 3D scanning and converting them to suitable formats for software in order to intervene to change the shape.
Expected learning outcomes:	Understand the process of development and organization; • To identify customer needs; • Know the concepts of product creation, selection, and testing;

	• To design the product by going through all the necessary stages; • Develop skills in using 3D printers; • Know how to use 3D scanners to scan products. • Know how to use application software to intervene in the scanned product.

Contribution to student workload (which should correspond to the students learning outcomes)			
Activity	**Hours**	**Days/week**	**Total**
Lectures and laboratory exercises	3	15	45
Practical work	3	1	3
Contacts to the Lecturer / Consultations	1	10	10
Tests, student seminars	3	2	6
Home work			
Time of self-study (in the library or home)	4	2	8
Final preparation for the exam	3	12	36
Time spent in assessment (tests, quiz, final exam)	2	8	16
Projects, presentations, etc.	1	2	2
Total			**127**

Teaching methodology:	Lectures and exercises combined with case studies and classroom discussions
Assessment methods:	Final exam: Final exam 50%, projects 50%
Means of concretization	Table, computers, projector, 3D printer, 3D scanner.
Literature	
Basic literature:	1. Karl T. Ulrich, Steven D Eppinger; (2016) Product Design and Developement (Sixth Edition) Mc Graw Hill. 2. Samuel B. Bernier, Tatiana Reinhard, Bertier Luyt; (2014) Make: Design for 3d Printing.
Additional literature:	
The ratio of theory to practice	40% theory 60% practice

Designed plan of teaching:	
Weeks	**Lecture to be held**
Week 1:	Introduction to syllabus and basic concepts
Week 2:	Organizational development process
Week 3:	Opportunity Identification
Week 4:	Product Planning
Week 5:	Identifying Customer Needs
Week 6:	Product Specifications
Week 7:	Concept Generation
Week 8:	Concept Selection
Week 9:	Concept Testing
Week 10:	3D printers
Week 11:	3d Product print
Week 12:	3D Scanner
Week 13:	Change the shape of the scanned product
Week 14:	Presentation of designet products
Week 15:	Presentation of designet products

Academic Policies and Rules of Conduct:
Regular attendance, keeping calm and active engagement in dialogue during lectures and exercises is mandatory.