

Të dhëna bazike të lëndës			
University/Fakulty	Faculty of Management		
Title of subject:	Development of Product and Manufacturing Operations		
Level of study:	II		
Status of subject:	Elective		
Number of hours per week:	4		
ECTS value:	5		
Location:			
Teacher of the subject:	Prof. Ass. Dr.Ferit Idrizi		
Contact:	ferit.idrizi@ushaf.net; ferit.idrizi@uni-pr.edu		
Description of subject:			
	This course is designed in such a way as to enable students to create basic knowledge about the relationship between technical and commercial aspects of products. Good knowledge of product specifications and their incorporation and its earlier phase of design will increase the competitive advantages in the market.		
Purpose of subject:			
	The objective of the course is to acquaint students with the real approach and the challenges of modern economy related to product and production. Also the definition of the product according to technical specifications and implementation of customer requirements as well as cost implications and product production. Building the idea for designing the manufacturing process based on manufacturing operations. Familiarization with decision models and application of optimization elements of the production line.		
Student Learning Outcomes:			
	After finishing the course the student should be able: <ul style="list-style-type: none"> • To have knowledge about the product specific requirements • Identify commercial and technical requirements related to the product • To know how to prioritize operations in the technological process • To be able to design the production line based on the manufacturing processes of the product • To design and optimize the flow and layouts. • To be able to calculate the line capacity and line balancing 		
Contribution in the load of student (which should correspond with results of gain of the student)			
Activity	Hours	Days/weeks	Total
Lectures	2	/15	30
Exercises Theoretical /Laboratory	2	/15	30
Practical work			
Contacts with teacher/consultations			
Practice in field			
Testing's, seminars	2	2	4
Homework	2	10	20
Time of self study of student (in library or at home)	2	15	30
Final preparation for exam	1	10	10

Time spent in evaluation (tests, questionnaire, final exam)			
Projects, presentations, etc.	2	1	2
Total			126
Metodologjia e mësimdhënies:	Regular teaching, lecturing with presentations in groups, exercises with tasks and examples, seminar tasks and works, tests, homework. All the methods to be dealt with will be followed by an adequate example through basic software (excel and access) and specialized in design of production lines.		
Evaluation:	Attendance: 10% Midterm exam: 30 % Final Exam: 30 % Seminar: 30 % : Total: 100%		
Literature			
Basic literature:	<ul style="list-style-type: none"> ➤ Ferit Idrizi, Zhvillimi i produkteve dhe proceseve teknologjike, skriptë, 2017 ➤ Michell P. Groover, Automation, production system and computerintegrated Manufacturint, Pearson, 2016 ➤ Cooper, R. G. 2001. Wining at new products. Persus Publishing. Cambridge, 		
Literatura shitesë:	<ul style="list-style-type: none"> ➤ S. Anil Kumar, Operation Management, 2009 ➤ LEE J. KRAJEWSKI, LARRY P. RITZMAN, MANOJ K. MALHOTRA, Operations Management PROCESSES AND SUPPLY CHAINS, Pearson, 10th ed. 		
Described Learning Plan:			
Weeks	Lecture		
<i>First week:</i>	Objective of the syllabus; Introduction to Product Development		
<i>Second week:</i>	Integral product development. A classic and modern approach to the product life cycle.		
<i>Third week:</i>	Technical and economic handling of product development		
<i>Fourth week:</i>	Qualitative Product Requirements.		
<i>Fifth week:</i>	Product Design and Decision Making		
<i>Sixth week:</i>	Prototyping		
<i>Seventh week:</i>	Geometric Modeling and CAD-CAM Systems. Product Model.		
<i>Eighth week:</i>	The process of technology as the framework of the manufacturing process		
<i>Ninth week:</i>	Structure of the production system.		
<i>Tenth week:</i>	Designing the working station		
Eleventh week:	Design by Process		
Twelfth week:	Block Schedule Schemes		
<i>Thirteenth Week:</i>	Flow Analysis and Matrix Method		
<i>Fourteenth Week:</i>	Line capacity analysis.		
<i>Fifteenth week:</i>	Balancing the line.		

Academic Policies and Rules of Conduct:

Regular attendance, keeping calm and active engagement in dialogue during lectures and exercises is mandatory.