SYLLABUS

1. Course title:

Product development

2. Code:

(max. 20 characters)

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

(max. 110 characters)

7. Class restrictions:

None

8. Duration / semester:

1 7

9. Weekly contact hours:

9.1. Lectures: 2

9.2. Seminars: 0

9.3. Laboratory/Practice classes: 1

10. Faculty:

Faculty of Mechanical Engineering Tuzla

11. Department/study program:

Manufacturing Mechanical Engineering

12. Lecturer:

Ph.D. Alan Topčić, Associate Professor

13. Lecturer's e-mail:

alan.topcic@untz.ba

14. Web site:

www.mf.untz.ba

15. Course aims:

Introduce students with the basic concepts, significance and stages of product development process. Point to the different approaches and models of the product development process and present the tools, methods and procedures used in each stage of the product development process. Master the basics of organization and management of the product development team. Point to the importance of the product user on the product development process. Explain ways and modalities of coordination and integration of suppliers in the product development process.

16. Learning outcomes:

Identify the opportunities and approaches to rationalization of product development process; Defining of phases of product development process for a specific case; Apply appropriate methods and approaches for each stage of the product development process; Define the organizational structure of the product development team; Analyze, quantify and evaluate the end user's requirements towards product development opportunities; Establish ways and modalities of activities coordination with suppliers in the product development process

17. Course content:

Introduction; The term of product; Product life cycle; The concept of product development; The phases of product development; Creating ideas about the product; Product Planning; Design of products; Prototyping; Testing of products; Defining the final product design; Integration of suppliers into process of product development; Product Development Team; Managing of the process of product development

18. Learning methods:

LECTURES - theoretical lectures with the aim of acquiring theoretical skills supported by usage of multimedia tools and applying of active two-way communication on relation student - professor; LABORATORY EXERCISES - work in the laboratory and in the field with the aim of acquiring practical skills related to the subject matter of attached items; Preparation and presentation of Seminar paper and reports on laboratory exercises - activities based on solving specific project issues from subjects of studie

19. Assessment methods:

PRE-EXAM REQUIREMENT: Students write two tests from Lecture - theoretical part (after half semester - first test and at the end of the semester - second test) and one test from the laboratory exercises (at the end of the semester). Tests include previously treated topics within lectures and laboratory exercises. Theories tests are consist from of multiple choice tasks, tasks of simple recollection or essay tasks, where each correct answer is scored with 1 point, ie., the student can collect up to 8 points per test - 16 points for two tests. The test from laboratory exercises is consists from practical solving tasks, where each correctly solved task is scored with 1 point, ie., the student can collect a maximum of 10 points. All the tests are taken by all students in the course at the same time thereby achieving uniformity of the level of knowledge that is being tested, as well as the conditions under the which a students takes the exam.
As part of the pre-exam requirement, students are required to prepare an individual Seminar paper that will cover a specific topic from the content of the subject. The same must be submitted in writing to the subject teacher for review, evaluation and presentation. For the Seminar paper, the student can collect a maximum of 4 points. Students prepare, submit and presents a Report from laboratory exercises for which they can earn a maximum of 10 points.
For a continuous activity on lectures and exercises throughout the semester, the student can collect 15 points in lectures and 15 points in labs.
The exam is oral. The right to access to the exam have a students who have fulfilled all the pre-exam requirement with more than 50% success, and were present in more than 70% of lectures and exercises. At the oral examination the student answers on five questions from the program of the subject treated in lectures and exercises. An oral exam can be passed if the student answers to all questions. The maximum number of points that student can achieve at the oral exam is 30 points. Checks on all forms of knowledge are recognized as a cumulative exam. In order to pass the course student must achieve a minimum of 54 cumulative points.

20. Assessment components:

The requirement for a signature in Index - presence in 70% of the lectures. The rating is based on the total number of points which student earned by completing pre-exam requirements and on exam. The maximum number of points are 100. Points are collected by fulfilling the obligations according to the following scale: attendance to the lecture (15 points), tests from theory (2 tests × 8 points), Seminar paper (4 points), attendance to the Laboratory Exercise (15 points), Task Test (10 points), Laboratory Exercise Report (10 points), Exam (30 points)
GRADING SYSTEM:
from 0 to 53 points - grade: 5 (five)
from 54 to 63 points - grade: 6 (six)
from 64 to 73 points - grade: 7 (seven)
from 74 to 83 points - grade: 8 (eight)
from 84 to 93 points - grade: 9 (nine)
from 94 to 100 points - grade: 10 (ten)

21. Required reading list:

Topčić A. i sar. (2012) "Razvoj proizvoda", Tuzla
Loch C.H. i sar. (2008) „Handbook of New Product Development Management", Elsevier Ltd

22. Web sources:

(max. 687 characters)

23. Applicable starting from the academic year:

2015/2016.

24. Adopted in the Faculty/Academy session:

03.06.2015.