



# UNIVERSITY OF NIŠ

**Course Unit Descriptor**

**Faculty**

Faculty of Mechanical Engineering

## GENERAL INFORMATION

Study Program	<b>Mechanical Engineering</b>		
Study Module (if applicable)	-		
Course Title	PRODUCT DEVELOPMENT METHODS		
Level of Study	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input checked="" type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	10		
Name of Lecturer/Lecturers	Anđelković R. Boban		
Teaching Mode	<input type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input checked="" type="checkbox"/> Individual tutorials
	<input type="checkbox"/> Laboratory work	<input checked="" type="checkbox"/> Project work	<input type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

## Purpose and Overview (max. 5 sentences)

Transfer the contents of general methods of product development to the students. Enable students to independently formulate the scientific principles of design tasks for developing products that are in the function of the doctoral dissertation.

## Syllabus (brief outline and summary of topics, max. 10 sentences)

Basic concepts of product development. The organizational structure of the product development process. Product models. Models, the basic principles and methods of PD. Models procedure in PD. Design and analysis of the target in PD. Methods for the analysis of product characteristics. The parameters of the analysis. Analysis of product attributes. Evaluation of the results of the analysis. (Check list, Abstraction, Prediction, " Poka Yoke ", Kano model, DSM matrix). Creating ideas for finding solutions. Methods for generating new ideas to find solutions (methods of evolutionary analogy method, Brainstorming, Brainwriting(635), functional decomposition, synectic, the method catalog, the method of morphological matrix). Methods for finding solutions. The combination of the idea of partials problems with the final concept. Decision making in PD..

## Language of Instruction

- Serbian (complete course)       English (complete course)       Other \_\_\_\_\_ (complete course)
- Serbian with English mentoring       Serbian with other mentoring \_\_\_\_\_

## Assessment Methods and Criteria

Pre exam Duties	Points	Final Exam	Points
Activity During Lectures	0	Written Examination	0
Practical Teaching	0	Oral Examination	50

Teaching Colloquia	50	Overall Sum	100
<b>*Final examination mark is formed in accordance with the Institutional documents</b>			