



# UNIVERSITY OF NIŠ

**Course Unit Descriptor**

**Faculty**

Faculty of Mechanical Engineering

## GENERAL INFORMATION

Study Program	<b>Manufacturing &amp; Information Technologies</b>		
Study Module (if applicable)	-		
Course Title	Manufacture of medical devices and implants		
Level of Study	<input type="checkbox"/> Bachelor	<input checked="" type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory	<input checked="" type="checkbox"/> Elective	
Semester	<input type="checkbox"/> Autumn	<input checked="" type="checkbox"/> Spring	
Year of Study	I		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Miodrag T. Manić,		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input checked="" type="checkbox"/> Laboratory work	<input checked="" type="checkbox"/> Project work	<input checked="" type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

## Purpose and Overview (max. 5 sentences)

*The acquisition of skills to analyze, design and manufacturing of medical devices, with special emphasis on the skeletal prosthetics.*

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

1) Medical implants, definitions, types, forms and purposes., 2) Legal and ethical standards in the production and application of medical supplies, 3) Geometrical characteristics of denture upper and lower extremities. 4) CAD modeling of implants, 5) Materials for prosthetic devices, criteria for the selection and testing of materials, 6) Traditional and Additive technologies for the production of implants and devices, 7) Surface treatment , 8) Design customized implants, 9) Tissues Engineering and scaffold.

## 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	10	Written Examination	20

<b>Practical Teaching</b>	<b>10</b>	<b>Oral Examination</b>	<b>20</b>
<b>Teaching Colloquia</b>	<b>40</b>	<b>Overall Sum</b>	<b>100</b>

**\*Final examination mark is formed in accordance with the Institutional documents**