![University of Niš logo]	**UNIVERSITY OF NIŠ**	
Course Unit Descriptor	**Faculty**	Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	**Manufacturing & Information Technologies**
Study Module (if applicable)	-
Course Title	Modeling and optimization of machining processes
Level of Study	☐ Bachelor ☒ Master's ☐ Doctoral
Type of Course	☐ Obligatory ☒ Elective
Semester	☐ Autumn ☒ Spring
Year of Study	I
Number of ECTS Allocated	6
Name of Lecturer/Lecturers	Miroslav R. Radovanović
Teaching Mode	☒ Lectures ☐ Group tutorials ☐ Individual tutorials ☒ Laboratory work ☒ Project work ☐ Seminar ☐ Distance learning ☐ Blended learning ☐ Other

Purpose and Overview (max. 5 sentences)

Introduce students to the basics of mathematical modeling and optimization of machining processes. The course is targeting both the theoretical and practical aspects of mathematical modeling and optimization of machining processes.

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

1) General introduction to mathematical modeling and optimization of machining processes, 2) Analysis of machining process. Factors and performances. Selection of factors and performances, 3) Selection of mathematical model. Mathematical modeling of machining process, 4) Adequacy and reliability of mathematical model, 5) Mathematical model of optimization of machining process. 6) Goal, criteria and constraints, 7) Optimization methods, 8) Examples of modeling and optimization of machining processes

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	5	Written Examination	30

Practical Teaching	5	Oral Examination	30
Teaching Colloquia	30	Overall Sum	100

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