UNIVERSITY OF NIŠ

Course Unit Descriptor	Faculty	Faculty of Mechanical Engineering

GENERAL INFORMATION	
Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Logical synthesis of digital systems
Level of Study	☐Bachelor ☐ Master's ☒ Doctoral
Type of Course	☐ Obligatory ☒ Elective
Semester	☐ Autumn ☒ Spring
Year of Study	I
Number of ECTS Allocated	10
Name of Lecturer/Lecturers	Vladislav A. Blagojević
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 synthesis of logical digital control. The course is targeting both the theoretical and practical aspects of the logical synthesis.

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

1) General introduction to digital systems, 2) Introduction to discrete mathematics , 3) Boolean algebra, 4) Minimization of logic function, 5) Combinational logic circuits, 6) Sequential logic circuits, 7) TIG Welding, 8) Digital system components, 9) Realization of logical digital control.

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	50
Practical Teaching	10	Oral Examination	Max. 35 (depending on Teaching Colloquia)

Teaching Colloquia	**35**	**Overall Sum**	**100**
***Final examination mark is formed in accordance with the Institutional documents**			