



UNIVERSITY OF NIŠ

Course Unit Descriptor**Faculty**

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Selected Topics in Welding Technologies		
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	Miroslav M. Mijajlović, Dragan S. Milčić, Dušan S. Stamenković		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input type="checkbox"/> Individual tutorials
	<input 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)

Adopted knowledge in welding technologies; To know-how and why to use specified parameters for welding technologies also to investigate their influence on welded structures; Application of adopted knowledge and skills on specified topics.

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

1) Basics of welding technologies. Theoretical and realistic model of the welding process, application field of welding technologies, power supplies for arc-based welding technologies, FEA in welding technologies, 2) Conventional welding technologies, Manual metal arc welding, Shielded Metal Arc Welding, Tungsten Inert Gas Welding, Submerged Metal Arc Welding, Oxy-fuel Welding technologies etc, 3) Nonconventional welding technologies, 4) Fully automatized technologies and robotics, 5) Welding of polymers. Welding of ceramics and composite materials, 6) Reparatory welding, Spraying and hard facing, Metallization, Special technologies, 7) Investigation of welded joints, 8) Phenomena of cracking in welded joints, 9) Health and safety while welding. Standards and regulations.

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

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