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 Welded Structures
Level of Study	☐ Bachelor ☐ Master's ☒ Doctoral
Type of Course	☐ Obligatory ☒ Elective
Semester	☒ Autumn ☐ Spring
Year of Study	II
Number of ECTS Allocated	10
Name of Lecturer/Lecturers	Dragan S. Milčić, Miroslav M. Mijajlović, Boban R. Anđelković
Teaching Mode	☒ Lectures ☐ Group tutorials ☐ Individual tutorials ☐ Laboratory work ☒ Project work ☒ Seminar ☐ Distance learning ☐ Blended learning ☐ Other

Purpose and Overview (max. 5 sentences)

To transfer subject contents about product development with welding technologies; To enable the students to independently and based on scientific principles perform product development by usage of welding technologies in function of dissertation writing.

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

1) Types of welded structures - steel and lightweight steel construction, 2) Types of loads. Stress analysis in real welded structures. Stress range. The fatigue strength of welded joints. The influence on the strength of the welded join. Stress distribution. The notch influence, 3) Behaviour of welded structures loaded with different load types, 4) Design of welded structures primarily intended for static load, 5) Behaviour of dynamically loaded welded structures, 6) Calculation of dynamically loaded welded structures, 7) Design of pressure vessels, 8) Design of welded structures made of aluminium alloys, 9) Quality assurance in welding, 10) Quality control in welding, 11) Test methods for non-destructive testing.

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	50
Practical Teaching	0	Oral Examination	50
Teaching Colloquia	0	Overall Sum	100

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