|  |
| --- |
| **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** |