

Study program: Industrial engineering – Mechanical engineering			
Course title: Measuring and Standardization			
Professor/assistant: Rajković Dragan, Miodrag Grubiša			
Type of course: Compulsory			
ECTS credits: 6			
Prerequisites: none			
Aims of the course: Students acquire practical knowledge and skills in the field of measuring, metrology, and control and standardization, with a special focus on measuring instruments and devices, and statistical control of quality. Students become competent to apply standardization to manage measuring devices and processes.			
Learning outcomes: The student uses measuring devices, selects instruments for measuring, designs measuring and control technologies, uses basic statistical methods, applies the principles of standardization, and records solutions in compliance with the requirements of the standards.			
Syllabus: <i>Theoretical part:</i> Basics of the theory of measurement and metrology, units of the SI system; Processing of results and measurement errors; Measuring and units of measurement; Measuring and control of thread parameters; Measuring and control of gear parameters; Measuring and control of an object position; Measuring and examination of parameters of work and living environment; System of measurement and equipment; Statistical methods for quality control; Standardization and standards; International and national organizations for standardization; Classification and status of standards; Standardized systems. <i>Practical part:</i> Practical training of students for work with measuring instruments, application of statistical methods, and preparation of term papers and reports.			
Literature: 1. Lazić M., Milićević R., <i>Merenje i kontrola</i> , Viša tehnička škola mašinske i saobraćajne struke, Kragujevac, 2000. 2. Lazić M., <i>Osnovi metrologije</i> , Mašinski fakultet, Kragujevac, 1987. 3. Mijatović I., <i>Standardizacija</i> , FON, Beograd, 2015.			
Total number of active classes: 60		Lectures: 30	Practical classes: 30
Teaching methods: Lectures: interactive approach; Practical training: solving tasks, preparation of term papers, practical work with measuring instruments and devices, consultations.			
Grading system (maximum 100 points) grading scale from 5 to 10: below 51 points – student fails the exam, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.			
Pre-exam obligations:	Points:	Final exam:	Points:
Activity during lectures	max 5	Oral exam	50
Practical training	max 5		
Written test(s)	max 20		
Term papers	max 20		
Minimum requirement for the final exam	30		