



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering
Study Module (if applicable)	-
Course Title	Machine elements 2
Level of Study	<input checked="" type="checkbox"/> Bachelor <input type="checkbox"/> Master's <input type="checkbox"/> Doctoral
Type of Course	<input type="checkbox"/> Obligatory <input checked="" type="checkbox"/> Elective
Semester	<input type="checkbox"/> Autumn <input checked="" type="checkbox"/> Spring
Year of Study	II
Number of ECTS Allocated	7
Name of Lecturer/Lecturers	Dragan S. Milčić
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)

To familiarize students with theoretical basis, constructional forms, calculation of machine elements, production, the functioning and application of machine elements

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

Power transmission elements. Spur Gears: Forms of teeth, Cycloid teeth, Involute teeth, Systems of gear teeth, Standard proportions of gear system, Gear materials, Design consideration for gear drive, Causes of gear tooth failure, Design procedure for spur gears. **Helical Gears:** Introduction, Terms used in helical gear, Design procedure for helical gears. **Bevel Gears:** Introduction, Terms used in bevel gears. , Proportions for bevel gears, Design of bevel gear. **Worm Gears:** Introduction, Types of worms, Types of worm gears. , Terms used in worm gearing, Proportions for worms, Proportions for worm gears, Design of worm & worm gearing. **Belt & Pulley design:** Introduction, Design of flat belt & pulley. Design of V-belt and its Pulley. **Chain Drives:** Chain drives, Roller chains, Geometric relationships, Dimensions of chain components, Polygonal effect, Power rating of roller chains, Selection of Chain drives. **Clutches:** Introduction, Types of clutches, Material, Design of a disc or plate clutch, Multiple disc clutch, Cone clutch, Centrifugal clutch.

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	10	Written Examination	0
Practical Teaching	10	Oral Examination	50
Teaching Colloquia	30	Overall Sum	100

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

