



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Engineering management		
Study Module (if applicable)	-		
Course Title	Designing		
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	III		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Boban R. Anđelković, Jelena Stefanović Marinović		
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)

Student will be able to synthesize and analyze a complex machine system. The acquired knowledge can be directly applied in practice.

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

Basic theory of design. The strength and reliability of machine parts. Dynamic, surface, structural strength. Influential factors, stress analysis. The complex stresses. Friction, belts and chain transmissions. Geometrical and kinematic characteristics of gear pairs. Shafts. Bearing. General features of sliding bears. Methodology of conceptual machine design conception. Definition task (list of requirements).The technical system structural function. Forming the conceptual variants. Dimensioning and design of parts machinery and equipment. Standardization, typization and unification. Principles of mechanical parts operating states analysis Critical conditions of parts and subassemblies. Principles of testing, functionality verification y and criteria for further improvement.

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	20
Practical Teaching	10	Oral Examination	30
Teaching Colloquia	30	Overall Sum	100

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