



UNIVERSITY OF NIŠ

Course Unit Descriptor

Faculty

Faculty of Mechanical Engineering

GENERAL INFORMATION

Study Program	Mechanical Engineering		
Study Module (if applicable)	-		
Course Title	Kinematics		
Level of Study	<input checked="" type="checkbox"/> Bachelor	<input type="checkbox"/> Master's	<input type="checkbox"/> Doctoral
Type of Course	<input checked="" type="checkbox"/> Obligatory	<input type="checkbox"/> Elective	
Semester	<input checked="" type="checkbox"/> Autumn	<input type="checkbox"/> Spring	
Year of Study	II		
Number of ECTS Allocated	6		
Name of Lecturer/Lecturers	Ratko G. Pavlović, Goran Janevski		
Teaching Mode	<input checked="" type="checkbox"/> Lectures	<input type="checkbox"/> Group tutorials	<input checked="" type="checkbox"/> Individual tutorials
	<input type="checkbox"/> Laboratory work	<input type="checkbox"/> Project work	<input type="checkbox"/> Seminar
	<input type="checkbox"/> Distance learning	<input type="checkbox"/> Blended learning	<input type="checkbox"/> Other

Purpose and Overview (max. 5 sentences)

The main objective of the course is to provide students theoretical knowledge from the movement geometry, geometry and elements of mechanisms. Training students to follow lectures in Dynamics, Machine elements, Fluid Mechanics and Theory of mechanisms.

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

Basic Concepts of Kinematics. Determination of Motion of a Particle – Vector and Natural. Particle Velocity. Determination of Particle Velocity in Various Types of Coordinate Systems. Particle Acceleration. Determination of Particle Acceleration. Basic Terms of Kinematics of a Rigid Body. Translation. Rotation of a Rigid Body about a Fixed Axis. Angular Velocity and Angular Acceleration of a Rigid Body. Planar Kinematics of a Rigid Body. Spherical Kinematics of a Rigid Body. Relative Motion of a Particle. Velocity and Acceleration of a particle in Relative Motion.

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	5	Written Examination	50

Practical Teaching	5	Oral Examination	Max. 50
Teaching Colloquia	50	Overall Sum	100

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