

Study Programme: Mechanization And Construction Engineering			
Course Unit Title: Theory of machines and mechanisms			
Course Unit Code: M208			
Name of Lecturer(s): Čavić Maja			
Type and Level of Studies: bachelor			
Course Status (compulsory/elective): compulsory			
Semester (winter/ summer): summer			
Language of instruction: english			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 4			
Prerequisites: none			
Course Aims: Introduction with the basic concepts and issues of analysis and synthesis of mechanisms and machines.			
Learning Outcomes: Ability of using basic mechanisms in complex mechanical systems and machines, ability to apply basic methods for kinematic and dynamic analysis of mechanisms and machines.			
Syllabus. Structural analysis of mechanisms. Degree of freedom. Graphical method for kinematic analysis of lever mechanisms. Analytical method for kinematic analysis of lever mechanisms. Inertial forces in mechanisms. Kinostatic forces. Graphical method for kinetostatic analysis of mechanisms. Analytical method for kinetostatic analysis of mechanisms. Planetary-differential gear trains. Cam mechanisms. Geneva mechanisms. Cardano-Hook joint. Fundamentals of lever mechanisms synthesis .			
Required Reading: Relevant literature in English TBD			
Weekly Contact Hours:2	Lectures: 2	Practical work:	
Teaching Methods: Teaching methods are: lectures, graphic and computer practice, consultations			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Attendance			
Computer exercises			
Tests (4x)			

