

Study program / course: Mechanical Engineering			
Type and level of study: Bachelor academic studies			
Course: Technical drawing with computer graphics			
Lecturers: Josifović D. Danica, Ivanović T. Lozica			
Status of course: Obligatory, joint for all modules, II semester			
Number of ECTS: 6			
Precondition:			
The objective of course The course gives basic knowledge about presenting machine parts and other technical forms in a drawing in plane and space using manual sketching and drawing, as well as computer graphics.			
The outcome of course The knowledge which the student gains in this course enables him/her to independently draw all the forms using standards and rules of technical drawing by hand or on a computer, knowledge of data bases and use of software packages for drawing.			
Syllabus			
Theoretical study Basic knowledge of Descriptive geometry. The notion of projection and drawing of machine parts in three right-angled projections. Axonometric presentation of parts and machines. Sections of bodies and planes, mutual sections of bodies with planes developed surfaces. Dimensioning and defining of surface roughness. Tolerances. Presentation of machine parts. Machine sketching and recording machine parts. Making drawings of assembly and details. Basics of CAD. Drawing machine and other shapes using computer in plane. Use of computer packages for drawing.			
Practical classes Doing exercises related to Descriptive geometry and Technical drawing. Presentation of machine parts in necessary number of projections defined dimensionally and machinery, sketching and recording of machine parts, making assembly and details. Drawing machine and other shapes using computer in plane. Use of computer packages for drawing.			
Recommended reading M. Mojovic: Technical descriptive geometry, Scientific book, Belgrade, 1985. D. Josifović: Descriptive geometry – Examples of the exercises, Scientific book, Belgrade, 1996. T. Pantelić: Technical drawing, Builder book, Belgrade, 1980. G. Omura: AUTO CAD 2000, Computer bibliography, 2001. L. Ivanović: Technical drawing with computer graphics, authorized lectures			
The number of hours of active teaching:			Other classes: 1
Theory: 3	Practical classes: 0	Other forms of teaching: 2	
		Research study: 0	
Methods of teaching The course consists of lectures, auditory exercises and exercises in a laboratory and the individual students' work. Through lectures, students get basic information about descriptive geometry, technical drawing and computer graphics, while through exercises the students individually work on a certain number of examples from the areas mentioned.			
Evaluation of knowledge			
Pre-final exam obligations	points	Final exam	points
Activities during the classes:	5	written exam	30
Practical classes:	20		
Colloquiums(s) :	45		
Seminar(s) :	-		