MM3222

Study program / course: Mechanical Engineering

Type and level of study: Master academic studies

Course: Computer Aided Design

Lecturers: Marjanovic Nenad

Status of course: Elective for module M2, III semester

Number of ECTS:6

Precondition: Fundamentals of Machine Design, Engineering Tools I

The objective of course

The aim of this course is to introduce students in advanced possibilities of applied computers and software in machine systems design, to capacitate students for modeling real machine parts and assemblies and for generating design documentation in chosen CAD software. The aim is, also, to capacitate students to watch for and accept news and improving in this area.

The outcome of course

Basic and advance knowledge about CAD software. Students capacitate for independent modeling parts, assemblies, wireframe and surface modeling, creating and managing design documentation of real mechanical systems. Knowledge about calculation of stress and strain, and managing of apperance of real mechanical parts. Knowledge about using models of standard parts and features, and calculation in CAD software. Advance knowledge about linking models in different softwares.

Syllabus

Theoretical study

Parts and assemblies modeling and creating and managing design documentation. Advanced possibilities of modeling real mechanical parts. Possibilities of analysis of real mechanical systems. Managing of apperance of models. Creating and managing design documentation

Practical classes

Solving practical tasks in areas: Part modeling (scetchs, constrains, features, features combining, parametric modeling). Assembly modeling. Creating design documentation.

Recommended reading

1.Marjanovic N., **Computer Aided Design - CATIA**, - script -Faculty of Mechanical Engineering, Kragujevac, 2008.

The number of hours of active teaching:				Other classes:
Theory: 3	Practical classes: 1.4	Other forms of teaching: 0.6	Research study:0	1

Methods of teaching

Lectures, exercises, individual homework, tests and final test.

Through lectures, students get basic information about theoretical basics, while through exercises the students solving the practical problems.

Evaluation of knowledge

Pre-final exam obligations	**points**	**Final exam**	**points**
Activities during the classes:	**10**	written exam	**30**
Practical classes:	**20**		
Colloquiums(s) :	**40**		
Seminar(s) :			