# nformation sheet for the course CAE Methods in the Practice of Design

University: Alexander Dubček University of Trenčín

**Faculty:** Faculty of special technology

Course unit code: SŠT/I/4-59/d Course unit title: CAE Methods in the Practice of Design

**Type of course unit:** *compulsory* 

Planned types, learning activities and teaching methods:

2 hours laboratory exercises per week

Number of credits: 2

**Recommended semester:** *1<sup>st</sup> semester in the 1<sup>st</sup> year (full-time)* 

1<sup>st</sup> semester in the 1<sup>st</sup> year (part-time)

**Degree of study:** II. (engineer)

Course prerequisites: none

**Assessment methods:** Final assessment: Min. 85% participation in exercises smax. 2 justified by the absence, preparation, submission and evaluation of term papers as required by instructor.

## **Learning outcomes of the course unit:**

The student can analyze and synthesize large and specialized factual knowledge, focusing on understanding the topics of computer aided engineering, where in the life cycle of a product used solely Computing. Reported different types of models are used as input data to the process simulation, the important role of software and hardware computer equipment.

#### **Course contents:**

Modeling and simulation using CATIA V5R20 environments: DMU Kinematics, Generative Structural Analysis, Reverse Engineering 1 - creation part of the data from a 3D scanner, 2 Reverse Engineering - modeling using 2D views, demonstration of 3D printing.

# Recommended of required reading:

TICKOO, S.: CATIA - kompletní průvodce, Computer Press, Brno 2012, ISBN 978-80-251-3527-3.

KUTIŠ, V.: Základy modelovania a simulácií, Vydavateľstvo STU Bratislava, 2010, 133 s., ISBN 978-80-227-3345-8.

Dassault Systémes: Dokumentacia CATIA V5R20.

Language: Slovak

### Remarks:

The subject is provided in the winter semester 1. year of full-time study. Subject is required.

### **Evaluation history:**

Total number of students being evaluated: 228

A	В	С	D	Е	FX
33,77	39,47	19,3	5,7	1,75	0,0

**Lecturers:** *Ing. Pavol Tököly, PhD. - lecture* 

Last modification: 15.4.2014

**Supervisor:** prof. Ing. Alexej Chovanec, CSc., guarantee of the study program "Maintenance and Repair of Special Mobile Technology".