Information sheet for the course
Fundamentals of Engineering Design

University: *Alexander Dubček University of Trenčín*

Faculty: *Faculty of special technology*

Course unit code: *SaOA/B/4-12/d*	**Course unit title:** *Fundamentals of Engineering Design*

Type of course unit: *compulsory*

Planned types, learning activities and teaching methods:
2 lecture hours and 2 hour seminar per week, attendance teaching method.

Number of credits: *5*

Recommended semester: *1st semester in the 1st year (full-time)*
1st semester in the 1st year (part-time)

Degree of study: *I. (bachelor)*

Course prerequisites: *none*

Assessment methods: *Continuous assessment: at least 85% participation in exercises, maximum 2 absences, test, processing and submit of semester assignments. Credit: submit processed tasks and get 20 points out of a possible 40 points. Final assessment: test in a written test (maximum 60 points). Point-raited evaluation criteria from a total of 100 points: (E) ≥ 56 points, (D) ≥ 65 points, (C) ≥ 74 points, (B) ≥ 83 points, (A) ≥ 92 points.*

Learning outcomes of the course unit: *The student has knowledge of cross-department focusing on application usage at the level corresponding to the current state of knowledge, provide theoretical knowledge and understand the basic rules for creating and reading technical documentation of simple machine parts and assembly units according to STN standarts.*

Course contents: *Technical documentation and standardization.The form and content of the technical documentation. Projection and dimensioning on the technical documentations*
Surface roughness. Classification of dimensions. Functional and technological dimensioning. Technical materials. ISO tolerance systems for limits and fits. Dimensional and geometric tolerances. General dimensional and geometrical tolerances. Machine components: bolted joint, pins, cotters, keys, circlip, shafts, springs, bearings, molded, riveted, welded and brazed joints. Transmission mechanisms: gears, chain drives, belt drives.

Recommended of required reading:
NEMČEKOVÁ, M.: Základy strojného inžinierstva. 1.vyd. - STU Bratislava, SjF STU Bratislava, 2012, ISBN 978-80-227-3799-9.
ANTALA, J.: Základy strojného inžinierstva. 1.vyd. - STU Bratislava, SjF STU Bratislava, 2012, ISBN 978-80-227-3772-2.
SVOBODA, P. a kol.: Základy konstruování. 4.vyd. – Akademické nakladatelství Cerm Brno, 2011, 234 s. ISBN 978-80-7204-750-5.
MEDVECKÝ, Š. a kol.: Konštruovanie 1. [2. vyd. – ŽU Žilina, 2007. ISBN 978-80-807-0640-9.
VÁVRA, P. a kol: Strojnícke tabuľky.

Language: *Slovak*

Remarks:
The subject is provided in the winter semester of the first year of full-time study.

Evaluation history: *Total number of student being evaluated: 565*

A	B	C	D	E	FX
2,12	6,19	12,92	21,77	39,29	17,7

Lectures: *prof. Ing. Ján Vavro, CSc. – lecturer*
Ing. Pavol Tököly, PhD. – lecturer, assistant instructor

Last modification: *15.4.2014*

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