# Information sheet for the course **Seminar of the foundations of Applied Mechanics**

University: Alexander Dubček University of Trenčín **Faculty:** Faculty of special technology Course unit code: *MŠT/B/4-25/d* **Course title :** Seminar of the foundations of Applied Mechanics **Type of course unit:** *compulsory* Planned types, learning activities and teaching methods: *Tutorial 2 hour weekly (on-site method)* Number of credits: 1 **Recommended semester:** 3<sup>rd</sup>semester in the 2<sup>nd</sup> year (full-time)  $3^{rd}$  semester in the  $2^{nd}$  year (part-time) **Degree of study:** *I. (bachelor)* Course prerequisites: MŠT/B/4-21/d, Engineering Mechanics I

#### **Assessment methods:**

Final score - credit: 100% active participation in the exercises, demonstrate basic knowledge in the course of the semester, timely transferred solved semester homework.

### Learning outcomes of the course unit:

The student can analyze factual knowledge, principles and processes, general concepts in a broad context of real work situations from mechanics to mastered and dominated the analysis of technical problems.

## **Course contents:**

The workshops is to introduce students to the equations of motion of the locomotive point, the body system of bodies. Release method, the method of reducing weight and power values, balancing rigid rotors, different types of motion of bodies, dynamic Euler equations. Theory cliff. *Lagrange equations II. type, vibration.* 

#### **Recommended of required reading:**

ŽIARAN, S.: Technická mechanika Statika, STU Bratislava 2003.

BRÁT, V.: Příručka kinematiky s příklady, Praha: SNTL ALFA, 1976.

MEDVEC, A. - STRADIOT, J. - ZÁHOREC, O. - CABAN, S.: Mechanika III, Dynamika,

Bratislava: STU, 1996.

ZÁHOREC, O. - MICHALÍČEK, M. - ŽIARAN, S.: Dynamika - zbierka príkladov, Bratislava: ALFA, 1991.

Language: Slovak Remarks:

**Evaluation history** 

Total number of students being evaluated: 0

A	В	С	D	Е	FX

Lecturers: Ing. Lenka Bartošová, PhD.- tutorial lecturer

Last modification: 15.4.2014

Supervisor: Assoc. prof. Ing. Peter Lipták, CSc., guarantee of the study program "Mechanisms in Special Technology".