# Information sheet for the course
# Seminar on fundamentals of engineering mechanics

**University:** *Alexander Dubček University of Trenčín*

**Faculty:** *Faculty of special technology*

| **Course unit code:** *ŠST/B/4-24/d* | **Course unit title:** *Seminar on fundamentals of engineering mechanics* |
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**Type of course unit:** *compulsory*

**Planned types, learning activities and teaching methods:**
*Tutorial 2 hour weekly*

**Number of credits:** *1*

**Recommended semester:** *1st semester in the 1st year of study /full-time /*
*1st semester in the 1st year of study /part-time /*

**Level of study:** *1.*

**Prerequisite courses:** *none*

**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 broad contexts in engineering mechanics and is designed especially for non-technical secondary school graduates. It deals with the fundamentals of statics and kinematics.*

**Course contents:**
*The seminar of statics and kinematics rehearse listeners calculation: balance beam, a three-member system of bodies, the four forces in the plane of the body. Center of gravity, trusses, brakes, and equilibrium reaction force in the mechanism. Relative curvilinear motion of a particle, sliding, rotating movement of the body. Geometric kinematics of the mechanism. Analytical vector method, the Coriolis decomposition. The basic decomposition. Calculation examples as necessary.*

**Recommended of required reading:**
*ŽIARAN, S.: Technická mechanika Statika, STU Bratislava 2003.*
*JANČINA, J.- Pekárek, F.: Kinematika, Bratislava, Alfa 1987.*
*BRÁT, V.: Příručka kinematiky s příklady, Praha, SNTL - Alfa 1976.*
*DUHÁR,A.- REHUŠ, M.: Príklady z kinematiky, návody na cvičenia, Bratislava, Alfa 1988.*

**Language:** *Slovak*

**Remarks:**
*Subject is provided in the summer semester of the first year of full-time study. Selective subject.*

**Evaluation history**
*Total number of students being evaluated: 90*

| A | B | C | D | E | FX |
|---|---|---|---|---|---|
| 20.13 | 15.12 | 16.48 | 15.34 | 32.93 | 0 |

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

**Last modification:** *15.4.2014*

**Supervisor:** *prof. Ing. Jiří Balla, CSc., guarantee of the study program "Special Mechanical Engineering Technology".*