Information sheet for the course
Mathematics I

University: *Alexander Dubček University of Trenčín*

Faculty: *Faculty of special technology*

Course unit code: *MŠT/B/4-01/d* | **Course unit title:** *Mathematics I*

Type of course unit: *compulsory*

Planned types, learning activities and teaching methods:
3 hours of lectures per week, 3 hours of exercise per week, face to face method

Number of credits: *7*

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:
100% participation in exercises, fulfilling the objectives set exercises, min. 60% attendance at lectures, special credit písomiek and achieve at least 60% of the total score, demonstrate knowledge of subject content in written and oral examination. Final assessment: test in a written test. Of the 100 points is required to evaluate the minimum min .: obtain (E) - 56 points, (D) - 67 points (C) - 77 points (B) - 87 points (A) - 95 points.

Learning outcomes of the course unit:
The student can analyze factual knowledge, principles and processes, general concepts in a broad context of work and area of study can analyze the theoretical knowledge in selected topics of Higher Mathematics (Linear Algebra. The function of one variable, its limit, derivative, the course features).

Course contents:
Basic concepts of propositional logic and set theory. Number sets. Vectors and vector spaces. Matrix, properties and operations with matrices, rank of a matrix. Types of nuts. Determinant nth degree and its calculation. The system of m linear equations with unknowns and its solution by means of matrices and determinants. The sequence characteristics limit sequence. The function of one variable, properties and operations functions, types of functions. Limit and derivative functions of one variable and use them for examination during the function.

Recommended of required reading:
HRICIŠÁKOVÁ, D. - BAČÍK, J. - HOLLÝ, J. - PAVLÍKOVÁ, S. - MATEJIČKA, L.: Matematika I*., Trenčín: TnU AD, 2005, ISBN 80-88914-18-3*
PETRUŠOVÁ,D.- RYBIČKOVÁ,L.: Zbierka úloh z matematiky, Trenčín, Fakulta sociálno - ekonomických vzťahov, TnUAD 2006, ISBN 80-8075-136-6. 106s.
KLUVÁNEK, I , MIŠÍK,L., ŠVEC,M.: Matematika I.Slovenské vydavateľstvo technickej literatúry, Bratislava,1966, 3. vydanie (aj iné vydania).

Language: *Slovak*

Remarks:

Evaluation history *Total number of students being evaluated: 368*

A	B	C	D	E	FX
3,26	5,98	10,05	18,48	51,90	10,33

Lecturers: *Assoc. Mgr. Daniela Hricišáková, PhD. - lecturer*
Ing. Lenka Rybičková, PhD. - lecturer, instructor

Last modification: *15.4.2014*

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