Information sheet for the course
Material Analysis

University: *Alexander Dubček University of Trenčín*	
Faculty: *Faculty of Industrial Technologies in Púchov*	
Course unit code: *MI-P-22*	**Course unit title:** *Material Analysis*
Type of course unit: *compulsory*	
Planned types, learning activities and teaching methods: *Lecture: 2 hours weekly/26 hours per semester of study; face to face* *Seminar: 2 hours weekly/26 hours per semester of study; face to face* *Laboratory tutorial: 2 hours weekly/26 hours per semester of study; face to face*	
Number of credits: *6*	
Recommended semester: *4th semester in the 2nd year full-time* *4th semester in the 2nd year part-time*	
Degree of study: *the 1st degree of study (Bachelor's degree)*	
Course prerequisites: *none*	
Assessment methods: *The course unit ends with exam, which has three parts – theoretical, computational and practical. For graduation of course unit is needed to achieve minimally 60 % for theoretical part, 60 % for computational part and participation in laboratory tutorial in terms of study code. Student obtains the counts for computational part of exam during semester from two computing tests.*	
Learning outcomes of the course unit: *Student knows experimental methods which can be used for analysis of various kinds of materials. Student interprets obtained qualitative and quantitative information about analyzed material. Student applies obtained knowledge during solving of practical tasks of material analysis. Student proves to apply obtained theoretical knowledge by practically way.*	
Course contents: *Introduction to material analysis, Sampling* *Qualitative analysis* *Gravimetric analysis* *Volumetric analysis* *Protolytic and precipitation reactions in qualitative analysis* *Complex and oxidation-reduction reactions in qualitative analysis* *Selected spectral methods* *Selected no-spectral methods* *Methods of thermal analysis* *Statistical treatment of analysis results*	
Recommended of required reading: *GARAJ, J., HLADKÝ, Z., LABUDA, J.: Analytická chémia I. Bratislava : STU, 1995, 1996, e- 2006.* *KOLLER, L.: Analytická chémia : Princípy analytických metód pre anorganickú prvkovú analýzu. Košice : TU, 2002.* *GARAJ, J., BUSTIN, D., HLADKÝ, Z.: Analytická chémia. Bratislava : Alfa, 1987.* *ČAKRT, M. a kol.: Praktikum z analytickej chémie. Bratislava : Alfa, 1989.* *PAVELEKOVÁ, I.: Analytická chémia. PF TU: Trnava , 2010.* *TRAPČÍK, P. a kol.: Zbierka príkladov z analytickej chémie. Bratislava : STU, 1995.* *VOLKA, K, a kol.: Příklady z analytické chemie pro bakaláře. Praha : VŠCHT, 2010.*	
Language: *Slovak*	
Remarks:	

Evaluation history:					
A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0
Lecturers: *Ing. Iveta Papučová, PhD., Ing. Jana Pagáčová, PhD., RNDr. Viera Mazíková, PhD.*					
Last modification: *31.03.2014*					
Supervisor: *prof. Ing. Darina Ondrušová, PhD.*					