

**Information sheet for the course
Applied Inorganic Chemistry in Material Engineering**

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>	
Course unit code: <i>MI-I-P-5</i>	Course unit title: <i>Applied Inorganic Chemistry in Material Engineering</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lecture: 2 hours weekly/26 hours per semester of study; face to face</i> <i>Seminar: 1 hours weekly/13 hours per semester of study; face to face</i> <i>Laboratory tutorial: 0</i>	
Number of credits: <i>3</i>	
Recommended semester: <i>1st semester in the 1st year full-time</i> <i>1st semester in the 1st year part-time</i>	
Degree of study: <i>the 2nd degree of study (Engineer's degree)</i>	
Course prerequisites:	
Assessment methods: <i>Students control structure and properties of industrial important inorganic materials and their applications.</i>	
Learning outcomes of the course unit:	
Course contents: <i>Elektronic structure of materials</i> <i>Chemical bonds in materials</i> <i>Crystal structure of materials</i> <i>Elektric, magnetic, aplic and thermal properties of materials</i> <i>Principles of course of chemical reactions in materials</i> <i>Properties of nonmetallic elements and their application in materials</i> <i>Properties of metallic elements and their application in materials</i> <i>Chemistry and technology of production of iron, alloys</i> <i>Binar componnds and their applications in materials</i> <i>Oxidic and nanoxidic ceramics</i> <i>Morelements componnds and their aplications in materials</i> <i>Silicate materials: alkali silicates, zeolites, asbest, fibres</i> <i>Construction materials: cements, silicates</i>	
Recommended of required reading: <i>1. E. Jóna, D. Ondrušová, M. Pajtášová: Priemyselná anorganická chémia I. FPT Púchov TnU AD, 2007</i> <i>2. G. Ondrejovič, R. Boča, E. Jóna, H. Langfellderová, D. Valigura: Anorganická chémia 2. STU Bratislava 1995</i> <i>3. M. Koman, M. Jamnický: Anorganické materiály. STU Bratislava 2007</i>	
Language: <i>Slovak</i>	
Remarks:	
Evaluation history:	

A	B	C	D	E	FX
5.26	14.47	39.47	22.37	15.79	2.63
Lecturers: <i>prof. Ing. Eugen Jóna, DrSc.</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					