

Information sheet for the course Nanotechnologies and Nanomaterials

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>MI-I-P-18</i>			Course unit title: <i>Nanotechnologies and Nanomaterials</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: 0</i> <i>Laboratory tutorial: 0</i>					
Number of credits: <i>3</i>					
Recommended semester: <i>3rd semester in the 2nd year full-time</i> <i>5th semester in the 3rd year part-time</i>					
Degree of study: <i>the 2nd degree of study (Engineer's degree)</i>					
Course prerequisites: <i>none</i>					
Assessment methods: <i>Test, semester project</i>					
Learning outcomes of the course unit: <i>Students have an overview of new nanomaterials and methods for their production and use.</i>					
Course contents: <ol style="list-style-type: none"> 1. <i>Definition of nanomaterials, their development and perspective.</i> 2. <i>Types of nanomaterials.</i> 3. <i>Structures and ways of nanomaterials preparation.</i> 4. <i>– 7. Technologies of nanomaterials preparation.</i> 8. <i>– 10. Machines and equipment for preparation and processing of nanomaterials.</i> 11. <i>– 13. Use and application of nanomaterials.</i> 					
Recommended of required reading: <i>Štaudner E.: Modifikácia polymérov. SVŠT Bratislava, 1981.</i> <i>Kyselá G.: Modifikácia polymérov a kompozity (interný učebný text). FPT Púchov, 2002.</i> <i>Rothon, R. N. : Particulate-Filled Polymer Composites, R. N. Rothon (Ed.), Longman Scientific, London, 1993.</i> <i>Pinnavaia T.J.: Polymer-clay nanocomposites , 2000 John Wiley, New York, NY 10158-0012</i> <i>Bhagwan D. Agarwal: Vlaknove kompozity. SNTL Praha (1987).</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history Number of evaluated students: 37					
A	B	C	D	E	FX
10.81	32.43	29.73	24.32	2.7	0.0
Lecturers: <i>prof. Ing. Ignác Capek, DrSc.</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					