

Information sheet for the course Corrosion of Materials and Corrosion Protection

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>MI-I-P-22</i>			Course unit title: <i>Corrosion of Materials and Corrosion Protection</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>Laboratory tutorial: 2 hours weekly/26 hours per semester</i>					
Number of credits: <i>4</i>					
Recommended semester: <i>4th semester in the 2nd year full-time</i> <i>4th semester in the 2nd 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</i>					
Learning outcomes of the course unit: <i>On completion of the course, students should be able to describe corrosion processes of metal and nonmetal materials and corrosion protection</i>					
Course contents: <ol style="list-style-type: none"> <i>1. Corrosion, type of corrosion</i> <i>2. Physical-chemical basis – chemical reactions, equilibrium</i> <i>3. Physical-chemical basis – heterogeneous reactions, facilities of surface</i> <i>4. Physical-chemical basis – electrochemistry</i> <i>5. Thermodynamic description of corrosion</i> <i>6. Kinetic description of corrosion</i> <i>7. Corrosion of ceramic materials</i> <i>8. Corrosion of metal materials</i> <i>9. Corrosion of plastic materials</i> <i>10. Corrosion protection of ceramic and plastic materials</i> <i>11. Corrosion protection of metal materials</i> 					
Recommended of required reading: <i>Kohout J., Melník M.: Anorganická chémia 1, Základy anorganickej chémie, STU Bratislava, 1997, ISBN 80-227-0872-0</i> <i>Chovancová M., Fellner P., Špirk E.: Základy korózie a povrchovej úpravy kovových materiálov, STU Bratislava</i> <i>Atkins P.W.: Fyzikálna chémia, preklad edit.</i> <i>Biskupič S., STU 1999, ISBN 80-227-1238-8ASM Handbook, Vol. 13A: Corrosion: Fundamentals, Testing, and Protection ASM International 2003</i>					
Language: <i>Slovak</i>					
Remarks:					
Evaluation history: 36					
A	B	C	D	E	FX
47.22	30.56	5.56	8.33	8.33	0.0
Lecturers: <i>prof. Ing. Tatiana Liptáková, PhD., Ing. Katarína Moricová, PhD.</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					