

Information sheet for the course Polymeric Material Analysis

University: <i>Alexander Dubček University of Trenčín</i>					
Faculty: <i>Faculty of Industrial Technologies in Púchov</i>					
Course unit code: <i>MI-I-PV-5CD</i>			Course unit title: <i>Polymeric Material Analysis</i>		
Type of course unit: <i>optional</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: 2 hours weekly/26 hours per semester of study; face to face</i>					
Number of credits: <i>6</i>					
Recommended semester: <i>2nd semester in the 1st year full-time</i> <i>2nd semester in the 1st 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>Reports of laboratory exercises test</i>					
Learning outcomes of the course unit: <i>The student has knowledge about different types of polymers and copolymers and their characterization by physical and chemical methods.</i>					
Course contents: <i>Polymers and copolymers, including graft, crosslinked-analysis. Synthetic and natural polymers-analysis. Physical, physico-chemical properties of the polymers. Gel permeation chromatography. Thermal analyses - DTA, DTG, DMTA. Differential scanning calorimetry. Dilatometry. UV, IR and NMR Spectroscopy. Evaluation of toxicity and environmental safety of polymers. Standardized tests of polymers (STN, EN standards).</i>					
Recommended of required reading: <i>1. Vajdová J., Štubňa M., Olšovský M.: Laboratórium odboru II – Chemické a fyzikálno-mechanické skúšky. FPT TnUAD Púchov, 2003.</i> <i>2. Szulényi F.: Metódy skúmania polymérov (učebný text). FPT Púchov, 2003.</i> <i>3. Garaj J., Bustin D., Hladký Z.: Analytická chémia. Alfa Bratislava, 1987.</i> <i>4. Čakrt M. a kol.: Praktikum z analytickej chémie. Alfa Bratislava, 1989.</i> <i>5. Príslušné STN.</i>					
Language: <i>Slovak</i>					
Remarks: -					
Evaluation history: 22					
A	B	C	D	E	FX
0.0	0.0	31.82	31.82	9.09	27.27
Lecturers: <i>prof. RNDr. Ignác Capek, DrSc., Ing. Iveta Papučová, PhD.</i>					
Last modification: <i>31.03.2014</i>					
Supervisor: <i>prof. Ing. Darina Ondrušová, PhD.</i>					