

## Information sheet for the course Machine and Equipment for the Processing of Plastics and Rubber

<b>University:</b> <i>Alexander Dubček University of Trenčín</i>	
<b>Faculty:</b> <i>Faculty of Industrial Technologies in Púchov</i>	
<b>Course unit code:</b> <i>MI-I-V-7</i>	<b>Course unit title:</b> <i>Machine and Equipment for the Processing of Plastics and Rubber</i>
<b>Type of course unit:</b> <i>optional</i>	
<b>Planned types, learning activities and teaching methods:</b> <i>Lecture: 2 hours weekly/26 hours per semester of study; face to face</i> <i>Seminar: 0</i> <i>Laboratory tutorial: 0</i>	
<b>Number of credits:</b> <i>2</i>	
<b>Recommended semester:</b> <i>2<sup>nd</sup> semester in the 1<sup>st</sup> year full-time</i> <i>2<sup>nd</sup> semester in the 1<sup>st</sup> year part-time</i>	
<b>Degree of study:</b> <i>the 2<sup>nd</sup> degree of study (Engineer's degree)</i>	
<b>Course prerequisites:</b> <i>MI-I-P-3 Polymeric Materials</i>	
<b>Assessment methods:</b> <i>Student writes two screening control tests during semester and obtains minimally 60 % from both tests.</i>	
<b>Learning outcomes of the course unit:</b> <i>Student has the knowledge about construction of machines, equipments and technological lines which are used for polymers.</i>	
<b>Course contents:</b> <ol style="list-style-type: none"> <li><i>1. Types and construction of machine tools (turning machines, milling machines, boring machines, grinding machines)</i></li> <li><i>2. Storage and transport of materials (bulk, powdery, liquid, gaseous)</i></li> <li><i>3. Methods for dispensing of materials (bulk, powdery, liquid, gaseous)</i></li> <li><i>4. Equipments for sorting of materials and sorting methods of materials + filtration</i></li> <li><i>5. Equipments for dividing of materials</i></li> <li><i>6. Machines and equipments for preparation of polymeric blends</i></li> <li><i>7. Pellet machines</i></li> <li><i>8. Cooling equipments</i></li> <li><i>9. Driers and vulcanization equipments</i></li> <li><i>10. Rolling machines, rolling lines</i></li> <li><i>11. Extruding equipments, extruding lines</i></li> <li><i>12. Press machines</i></li> <li><i>13. Injection machines</i></li> <li><i>14. Forming equipments – mechanical, pneumatic, vacuum, pressure</i></li> <li><i>15. Extrusion blow molding and injection blow molding</i></li> <li><i>16. Ready-made machines and lines</i></li> <li><i>17. Machines for final treatments – coating, impregnation, laminating, printing, embossing</i></li> </ol>	
<b>Recommended of required reading:</b> <ol style="list-style-type: none"> <li><i>1. Maňas, M. – Tomis, F.: Výrobní stroje a zařízení. Gumárenské a plastikárske stroje I. Brno: FT VUT, 1987.</i></li> <li><i>2. Tomis, F. – Rulík, F.: Gumárenské a plastikárske stroje II. Brno: FT VUT, 1981.</i></li> <li><i>3. Kuta, A.: Technologie a zařízení pro zpracovávání kaučuku a plastu. Praha: VŠCHT, 2007.</i></li> <li><i>4. Olšovský, M. a kol.: Gumárenské výrobky a výroby. Trenčín: TnUAD, 2004.</i></li> </ol>	
<b>Language:</b> <i>Slovak</i>	

<b>Remarks:</b>					
<b>Evaluation history</b>					
Number of students: 17					
A	B	C	D	E	FX
35.29	23.53	17.65	5.88	5.88	11.76
<b>Lecturers:</b> <i>doc. Ing. Petra Skalková, PhD.</i>					
<b>Last modification:</b> <i>31.03.2014</i>					
<b>Supervisor:</b> <i>prof. Ing. Darina Ondrušová, PhD.</i>					