

Information sheet for the course: **Technology of Material Processing II**

<b>University:</b> Alexander Dubček University of Trenčín	
<b>Faculty:</b> Faculty of Industrial Technologies in Púchov	
<b>Course unit code:</b> MI-PV-B-15	<b>Course unit title:</b> Technology of Material Processing II
<p><b>Form, scope and method of educational activity:</b>  <b>Form of study:</b> Lecture / Seminar / Laboratory tutorial  <b>Recommended number of lessons (hours):</b>  <b>Weekly:</b> 2 / 0 / 2 <b>During the semester:</b> 24 / 0 / 24  <b>Method of study:</b> combined method  Lecture: 24 hours  Seminar: 0 hours  Laboratory tutorial: 24 hours</p>	
<b>Number of credits:</b> 4.	
<b>Recommended semester:</b> 4.	
<b>Degree of study:</b> The 1rd degree of study	
<b>Course prerequisites:</b> KMI/MI-P-3/21	
<p><b>Assessment methods:</b>  Assessment during the semester:  Summary assessment of work results during the semester = 40 points  Semester work and independent work during the semester. A student who obtains at least 20 points in the interim evaluation can apply for the exam.  Assessment of exam results = 60 points  Grading scale:  Grade A: 91 – 100 points  Grade B: 81 – 90 points  Grade C: 71 – 80 points  Grade D: 61 – 70 points  Grade E: 55 – 60 points  Grade FX: less than 55 points</p>	
<p><b>Learning outcomes of the course unit:</b>  The student has a set of basic theoretical and practical knowledge about technologies and technological procedures by which semi-finished products and finished products are produced in the industry. It has an overview of the most used production processes in forming and machining technologies. He knows apply the acquired knowledge from the mentioned areas in their creative activity.</p>	
<p><b>Course contents:</b>  Formability, laws of formation. Forming machines. Material heating. Rolling (sheets, rods, profiles, strips and pipes). Forging, free and die forging. Production of forgings. Volumetric cold forming (drawing of bars, profiles and pipes, pressing, stamping). Surface forming (shearing, bending, deep drawing). Machinability, machining processes. Chip. Moves. Cutting tool (geometry and material). Cutting forces, cutting fluids. Turning, milling, planing, painting.  Grinding and finishing operations. Modern and innovative machining methods.</p>	
<p><b>Recommended of required reading:</b>  LETKO, I., MEŠKO, J., PILC, J., STANČEKOVÁ, D.: Industrial technologies II. 1.. ZUSI Žilina. 2002. ISBN 80-968605-3-4.</p>	

JANÁČ, A., BÁTORA, B., BARÁNEK, I., LIPA, Z.: Machining technology. Bratislava: STU, 2004. ISBN 80-227-2031-3.

BAČA, J.: Forming technology. 1. vyd. Bratislava. STU. 2000. ISBN 80-227-1339-2.

VASILKO, K., HRUBÝ, J., LIPTÁK, J.: Machining and assembly technology. Bratislava: Alfa, 1991. ISBN 80-05-00807-4.

MIKELL, P. G.: Fundamentals of modern manufacturing: materials, processes, and systems. 4th ed. Hoboken, NJ: J. Wiley, 2010. ISBN 0470467002. E-learning.

**Language:**

Slovak

English

**Remarks:** Compulsory elective course

**Evaluation history:**

Total number of graded students:

A	B	C	D	E	FX
0.0	0.0	0.0	0.0	0.0	0.0

**Lecturers:** Ing. Andrej Dubec, PhD., Ing. Mariana Janeková, PhD.

**Last modification:** : 27.05.2022

**Supervisor:** doc. Ing. Jan Krmela, PhD.