

<b>Course title: Theory of Cutting</b>	<b>Neptun code: GEGTT421-a</b>
<b>Course coordinator: Prof. Dr. habil. János Kundrák, professor emeritus</b>	
type and number of lesson: <b>2 lecture / week</b>	
method of accountability: <b>colloquium</b>	
curriculum location of the subject: <b>spring</b>	
pre-study conditions: -	
<b>The task and purpose of the subject:</b>	
The aim of the course is to learn the principles of metal cutting and the machining procedures of surfaces with various geometries.	
<b>Course description:</b>	
The mechanical, mathematical model of cutting. Theories on the mechanism of chip removal. Deformations during the chip removal. Heat processes in metal cutting. Microcutting processes. Machining with geometrically undefined cutting edges. Tribology of cutting. Optimization problems in the cutting processes.	
<b>Required literature:</b>	
<ol style="list-style-type: none"> <li>1. Milton C. Shaw: Metal Cutting Principles, Oxford University Press, 2005, p649</li> <li>2. Wit Grzesik: Advanced Machining Processes of Metallic Materials, Elsevier, 2008, p446</li> </ol>	
<b>Recommended literature:</b>	
<ol style="list-style-type: none"> <li>1. König, W.: Fertigungsverfahren. Band 3. Abtragen, 1981.</li> <li>2. Preger, K.T.: Zerspantechnik. Fridrich Vieweg u. Sohn, Braunschweig, 1999.</li> </ol>	