

<i>Name of the subject:</i> Manufacturing Equipment and Systems II	<i>NEPTUN-code:</i> <i>BGXGRE6BNE</i>	Credits: 4 ECTS: 6
<i>Subject leader:</i> <i>Dr. György Czifra</i>	<i>Title: associate professor</i>	
<i>Course description:</i>		
<p>The subject deals with the topics as follows: guidance of manufacturing equipment based on product models. Prepare and simulate the necessary movement cycles and control programs. Designing turning operations based on contours. Milling with fixed and variable position of axes. Structure and functional components of NC cutting machines. Position measuring systems. Main drives, positioning drives, ball screws, ways. Operation of NC controls, division of controls, KNC, CNC, DNC. CAD-CAM systems in production design. Tooling issues of machining centres and production cells. Manufacturing and informatics sub-systems of flexible manufacturing systems. Design and operation of manufacturing systems. Palette and robotic solutions of automated work piece supply. Tool changer and tool exchanger versions of the tool supply. Types of inspection, supervision of work piece, tool monitoring, machine monitoring and process control. Implementation of automatic chip control and its environmental benefits.</p>		