

Course title: Kinematical Surfaces, Machining and Production Devices	Neptun code: GEGTT403-a
Course coordinator: Dr. István Sztankovics, PhD, senior lecturer	
type and number of lesson: 2 lecture / week	
method of accountability: colloquium	
curriculum location of the subject: spring	
pre-study conditions: -	
The task and purpose of the subject:	
Presentation of the modelling possibilities of kinematic surfaces. Introduction to the possible machining procedures of kinematic drive pairs and torque transmitting surfaces. Description of production equipment used in the machining of kinematic surfaces.	
Course description:	
Machining of kinematic and torque-transmitting surfaces with defined edge geometry and abrasive tools. Application of constructive tool geometry to define the machined surface. Design of traditional and special gears, worm drives and cutting tools using kinematic motion mapping. The possibilities of CAD, CAM, CAQ in the design, production and control of geometrically complex surfaces and cutting tools production. CNC disc control.	
Required literature:	
<ol style="list-style-type: none"> 1. Stephen P. Radzevich: Generation of Surfaces, Kinematic Geometry of Surface Machining. CRC Press p.740 ISBN 9781138074439 2. Dudás, I.: The Theory and Practice of Worm Gear Drives, Penton Press, London 2000., ISBN1 8571 8027 5 	
Recommended literature:	
<ol style="list-style-type: none"> 1. Faydor L. Litvin: Gear Geometry and Applied Theory, P T R Prentice Hall, Eng- lewood Cliffs, New Jersey, 1994. 2. Stephen P. Radzevich: Theory of Gearing, Kinematics, Geometry, and Synthesis, Second Edition. CRC Press p.934 ISBN 9780429999178 	