

<b>Óbuda University</b> <b>Donát Bánki Faculty of Mechanical and Safety Engineering</b>		<b>Institute of Mechanical Engineering and Security Sciences</b>		
<b>Subject name/code: Machine Design I/ BGBGG1ENND</b>				<b>Credits: 4</b>
<i>English language course 2016/2017 spring semester</i>				
<b>Mechatronics Engineering BSc programme</b>				
Subject leader:	Dr. Ancza Erzsébet		Lecturer:	Dr. Ancza Erzsébet
Prerequisites:	-			
Weekly hours:	Lecture: 2	Group seminar: 0	Lab: 2	Consultation:
Requirements:	practice mark			
<b>Course description</b>				
The aim of this course is to provide an introduction to drawing fundamentals and to develop drawing skills of students. The first part of the course covers such topics as layout of technical drawings, line styles, lettering, scale, geometric construction, transformation, projection (orthographic projection, central or perspective projection, oblique projection), axonometric view (isometric, diametric, Cavalier etc.). The second part of the course focuses on topics as follows: orthographic projection, sketching, dimensioning, sectioning, symbolic representation of machine parts, detail and assembly drawing.				
<b>Schedule</b>				
Week	Topics			
1	Course Introduction: Layout of drawings, lines, lettering and scaling.			
2	Geometric constructions			
3	General characterisation of technical imaging. Systems of projection.			
4	Monge projection: Images of points.			
5	Monge projection: Representation of lines in space.			
6	Monge projection: Plane surfaces in space.			
7	Test1. Orthographic projection			
8	Dimensioning			
9	Section views			
10	Symbolic representation of machine parts I.			
11	Symbolic representation of machine parts II.			
12	Fits and tolerances			
13	Test 2. Manufacturing processes and surface roughness			
14	General and individual assessment			
<b>Requirements:</b>				
Participation in lectures and labs: Compulsory				
Signature is given at the end of the semester to confirm the fulfilment of requirements.				
The criterions of signature are:				
7 out of 10 classroom drawing exercises (with help),				
10 out of 10 midterm drawing assignments (homework),				
2 midterm tests (20+20 points, min. 8 points from each is required),				
1 part drawing in the classroom, without help (20 points, min. 8 points is required).				
Altogether: 60 points				
<b>Grading:</b>				
0-30 points: (1), 31-37 points: (2), 38-44 points: (3), 45-52 points: (4), 53-60 points: (5)				
<b>Recommended references:</b>				
1. Dr. Horváth Sándor, dr. Kósa Csabáné: <ul style="list-style-type: none"> <li>a. Műszaki kommunikáció, No. 3014</li> <li>b. Műszaki kommunikáció segédlet, No. 3013</li> </ul>				
2. K. Venkata Reddy: Textbook of Engineering Drawing. Second edition.				
3. Technical Drawing with Engineering Graphics, Fourteenth Edition, ISBN: 9780133031560 from Pearson				
4. PPT presentations will be available on Moodle system.				

05 January 2017

.....  
subject leader