



## SUBJECT DATASHEET

<b>Semester:</b>	2011/12/1
<b>Subject:</b>	Technical Drawing and Descriptive Geometry
<b>Code:</b>	VEMKGEB145R
<b>Responsible department:</b>	Department of Mechanical Engineering
<b>Responsible department code:</b>	MKGE
<b>Responsible lecturer:</b>	Dr. Sándor Verdes

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### Educational objectives:

The students getting acquainted with the most important rules of technical drawing and industrial standards.

### Detailed content of the subject:

1. Introduction lecture. Significance of technical drawing in the cooperation of engineers of different professions. Different types of projection (multi-view projection, axonometric-, engineering- and perspective presentation). 2. Introduction and practicing of different types of projection by use of special models. 3. Delineation of space-elements (point, line, plane) I. 4. Delineation of space-elements (point, line, plane) II. 5. Rectifying, rotation. 6. Intersection of two intersecting planes. 7. General knowledge of technical drawing. Designation of views on engineer drawings. Arrangements of views. 8. Projections out of ordinary arrangement of views. Particular sort of views. Special representation. 9. Sections and profiles. 10. Indicating of sections and profiles. 11. Dimensioning of technical drawings. General specifications of dimensioning. Marks for dimensions. 12. Test paper. 13. Simplifications of dimensioning. Structure of measuring network 14. Geometrical quality of the surface. Unevenness of surface. Surface roughness, terminology. Designation of the surface roughness on technical drawings. 15. System of limits and fits. The basic principles and elements. Structure of the ISO system on limits and indicating of fits, tolerances of sizing and its form and position on technical drawings.

### Requirements:

3 test papers on the 4th, 8th, 13th week of the semester  
Writing of technical Roman letters  
Writing of the technical Greek letters  
Drafting with free hand in axonometric drawing, 6 projections on sheet A/3  
Making of an axonometric drawing and 6 projections with free hand on a A/3 sheet from a small model.  
Making of an axonometric drawing, according to projections with free hand on A/3 format.  
Practicing with compasses and ruler.  
Solving of contact problem with compass and ruler form  
Making of drawing of simple machine parts according to sample drawing

### Required and suggested references:

Gonda S.: Gépészeti alapismeretek c. tantárgy -Ábrázoló geometria fejezetének segédlete. Veszprémi Egyetemi Kiadó, Vp., 53/1998.; Gonda S.: Gépészeti alapismeretek c. tantárgy -Ábrázoló geometria fejezetének feladatgyűjteménye. Veszprémi Egyetemi Kiadó, Vp., 79/1993.; Gonda S.-Szalczinger J.:Gépészeti alapismeretek Műszaki rajz, géprajz fejezetének segédlete. Veszprémi Egyetemi Kiadó, Vp., 35/1996.; Gonda



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S.-László A.-Szalczinger J.: Gépészeti alapismeretek c. tantárgy -Rajzvetmi gyakorlatok ábrafüzete. Veszprémi Egyetemi Kiadó, Vp., 47/1992.; Pertich G.: Ábrázoló geometria. Tankönyvkiadó, Budapest, 1973.; Pethes E.: 222 ábrázoló geometria feladat. Műszaki Könyvkiadó, Budapest, 1963.