**Introduction to graphic communication (ECTS 6)**

Language: the course is offered in Serbian and Hungarian.

Contact person: Dr. Lívia Szedmina (slivia@vts.su.ac.rs)

**Course description:**

The course covers the basic aspect of graphic communication regarding the engineering design process. Having in mind the aspects of communication, the visualization, communication itself and documentation is discussed in detail. Some aspects of interdisciplinary approach are also discussed. After this, the basic principles of descriptive geometry are discussed; projections, geometric elements, transformations, etc. Following this, the mathematical principles of computer aided design are discussed focusing mainly towards vector-graphics. At the end, the basics of technical drawing are introduced: lettering, line types, formats, views, sections, dimensioning, etc..

This course would cover the following topics, both as lectures and exercises:

1. Introduction
2. Design process. Visualisation, Communication and Documentation
3. Introduction to descriptive geometry
4. Projections
5. Geometric elements (points, lines, plains) in projections
6. Shapes
7. Finding the true dimensions and shapes
8. Mathematical principles of CAD – vector graphics
9. Transformation in 2d and 3d
10. Fundamentals of technical drawing
11. Lettering, line typles, formats...
12. Views
13. Sections
14. Dimensioning (basics)
15. Closing remarks

**Aims:**

The goals are the following: - The students should accept the necessity to communicate during the design process, and the techniques, which enable that. Also, students should be able to understand, and design in 2d, based on 3d ideas. Students should be able to understand the mathematical principles of CAD, and be able to interpret and design simple technical drawings.