

Final Exam information for EMÜ 102 Computer Aided Technical Drawing

Final Exam for Spring 2024-2025 Academic Year will take place as follows:

on Monday (June 16) for the branch of 02 at 09:40 and on Tuesday (June 17) for the branch of 01 at 09:40

The following equipment must be brought to the exam:

- for drawing on paper; ruler (in 30 cm length), set square (in both 30/60 and 45/45 degrees), hole template, protractor, compass, pencil and eraser
- for computer drawing; your own laptop
(it must have a licensed AutoCAD program with at least the 2018 version installed)

Final Exam will be conducted in two steps:

the first 70 minutes are dedicated to technical equipment-based drawing on paper (worth 65 points), and the next 30 minutes are allotted to computer-based drawing using AutoCAD (worth 35 points).

The following types of ask should be drawn on paper:

Question 1 (5 points):

Scaling the object to enlarge

Question 2 (20 points):

Projection the object(s) in 2D Epure plane

Question 3 (30 points):

Drawing the object in European norm including the design description

Question 4 (5 points):

Sectioning the sample object with 2D manner and hatching as indicated by the cutting plane

Question 5 (5 points):

Commanding for drawing the object which has a specific angle of an oblique edge by performing the preliminary work

The following types of ask should be drawn on the computer using AutoCAD:

Question 6 (35 points): Object A (10 points) + Object B (25 points)

Object A and Object B will be prepared in 2D aspect according to the explanations and desired features in the question about them.

Object A may contain; attunement with tan and/or tTR, offset, polygon, rotate, mirror, fillet, chamfer, hatch or gradient.

Object B is to be produced using any two of the following constructions, and it will be supported by design description:

- line segmentation in the golden ratio to provide the value $M/m = 1.618$
 - rectangle modified from the square standing vertically or horizontally
 - spiral by the Fibonacci sequence depending on the golden rectangle
 - spiral maintained by the 12 circles in terms of the technique of Archimedes
 - ogee curve in which the S-shaped arcs may be equal or unequal
 - parabola standing vertically and appearing to the right of the axis on the drawing plane
 - hyperbola standing vertically and appearing to the right of the axis on the drawing plane
 - helix prepared with the combination of triangle and circle which both contain twelve slices
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