

## Tárgytematika / Course Description

### Technical Drawing 1

GKNB\_MGTA001

**Tárgyfelelős neve /**

**Teacher's name:** dr. Balogh Tibor

**Félév / Semester:** 2019/20/1

**Beszámolási forma /**

**Assesment:** Folyamatos számonkérés

**Tárgy heti óraszám /**

**Teaching hours(week):** 2/2/0

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

### OKTATÁS CÉLJA / AIM OF THE COURSE

#### Course description

The course covers the interpretation, creation and use of technical drawings. The standards required for technical communication are described. Two-dimensional representation of spatial three-dimensional objects and the practical applications are expounded. Provides skill in recognizing and drawing the most common machine elements.

#### Aim of course

Obtain basic knowledge of the technical representation methods

Development of visual perception

Introducing and practicing the contents of international and national standards

### TANTÁRGY TARTALMA / DESCRIPTION

#### Content of course

| Week | Topic   |
|------|---|
| 1    | Assessment<br>Drawing Standards<br>Technical Drawings Requirements  |
| 2    | Basic drafting<br>Applied geometry<br>parallel, perpendicular lines, angles, equilateral triangle, square, pentagon, hexagon, ellipse, etc. |
| 3    | Pictorial representation<br>Axonometry: isometric, dimetric and oblique projection  |

|    |  |
|----|--|
| 4  | Ortographic representation<br>first angle and third angle projection     |
| 5  | Auxiliary views<br>Sections of solids: prism, cylinder                   |
| 6  | Dimensioning   |
| 7  | Mid-term test  |
| 8  | Sectional views: full section, half-sections                             |
| 9  | Sectional views: offset section, revolved section,<br>broken-out section |
| 10 | Special views: detailed view, partial view, local view                   |
| 11 | Tolerances   |
| 12 | Surface finish<br>Technical drawing examples                             |
| 13 | Mid-term test  |
| 14 | Re-test  |

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## SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

### Assesment

2 homeworks (10+20) – 30%

2 small tests (2x5) – 10%

2 mid-term tests (30 + 30) -60%

### Homeworks

| Task   | Start   | Deadline |
|--|---------|----------|
| Ortographic and pictorial representations of a truncated prism | 2. week | 8. week  |
| Engineering drawing of 2 parts                                 | 8. week | 12. week |

The drawings must be submitted up to the deadline. In the event of a delay, 2 marks will be deducted from the final score.

Evaluating the tasks, the following is considered:

required number of views

lineweights

dimensions

filled in titleblock

accuracy

Successful homework is max. 10 and 20 marks

- If the task can not be accepted (does not reach 50%), it can be re-done, but the maximum score is only 5 and 10 marks in this case.
- For the mark at least 50% of the maximum 30 marks (ie 15 marks) should be reached, otherwise the mid-term mark will be inadequate (signature denied!)
- Homework and re-done homework can only be submitted during the lecture period!

Practical class tasks

- Each task is worth 5 marks each
- At least 5 marks must be achieved in total, otherwise the mid-term mark will be inadequate (signature denied!)
- Expected times are 6. week and 11. week.

Mid-term tests

1. test: expected time 7. week, available score 30;

2. test: expected time 12. week, available score 30.

- For the mark at least 50% of the maximum marks (ie. 15 marks) should be reached on each tests, otherwise the mid-term mark will be inadequate (1)
- Inadequate test can be corrected with a re-test in the 14. week
- The maximum score of the re-test is 50% (15 marks)

Inadequate mid-term test can be corrected with an exam during the examination period, but only if the other requirements (ie. 50% from the homeworks and practical class tasks) are fulfilled.

Consultation about the homeworks and test is possible the next week after the assignment!

Grade:

|               |            |          |
|---------------|------------|----------|
| 0 - 49 marks  | inadequate | <b>1</b> |
| 50 - 60 marks | adequate   | <b>2</b> |
| 61 - 70 marks | average    | <b>3</b> |

|                |           |   |
|----------------|-----------|---|
| 71 - 80 marks  | good      | 4 |
| 81 - 100 marks | excellent | 5 |

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## KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

### **Obligatory material**

Presentation slides

C. Jensen, J. D. Helsel, D. R. Short: Engineering Drawing&Design

### **Recommended material**

O. Ostrowsky: Engineering Drawings with CAD applications

F. Háromi, G. Kovács: Műszaki Ábrázolás (in Hungarian)

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