

Tárgytematika / Course Description Technical Drawing 1

GKNB_MGTA001

Tárgyfelelős neve /

Teacher's name: dr. Hajdu Flóra

Félév / Semester: 2023/24/1

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

-Assesment

-Drawing standards

- Technical drawing requirements
- Basic drafting
- Applied geometry: parallel, perpendicular lines, angles, equilateral triangle, square, pentagon, hexagon, ellipse, etc.
- Pictorial representation
- Axonometry: isometric, dimetric and oblique projection
- Orthographic representation: first angle and third angle projection
- Auxiliary views
- Section of solids: prism, cylinder
- Dimensioning, tolerances
- Sectional views: full-section, half-section, offset section, revolved section, broken-out section
- Special views: detailed view, partial view, local view
- Tolerances, fits
- Surface finish
- Technical drawing examples

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Assesment

- 2 homework (10+20) – 30%
- 2 mid-term tests (30+30) - 60%
- 2 small test (5+5) - 10%

Homeworks

| Task | Start | Deadline |
|--|---------|----------|
| Orthographic and pictorial representations of a truncated prism and a cylinder | 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 pass at least 50% of the maximum 10 and 20 marks (ie 5 and 10 marks) should be reached of each homework, otherwise the mid-term grade will be inadequate (signature denied!)

· Homework can only be submitted during the lecture period! Re-done homework can be submitted till the end of the examination period, but only if it was submitted during the lecture period.

Practical class tasks

- Each task is worth 5 marks
- At least 5 marks should be achieved, otherwise the mid-term grade 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 13. week, available score 30;

For pass at least 50% of the maximum marks (i.e. 15 marks) should be reached on each tests, otherwise the mid-term grade 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 tests can be corrected with an exam during the examination period, but only if other requirements are fulfilled (i.e. 50% from the homeworks and practical class tasks)

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

Grade:

| | | |
|----------------|------------|---|
| 0 - 49 marks | inadequate | 1 |
| 50 - 64 marks | adequate | 2 |
| 65 - 74 marks | average | 3 |
| 75 - 84 marks | good | 4 |
| 85 - 100 marks | excellent | 5 |

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Obligatory material

Presentation slides

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

Recommended material

O. Ostrowsky: Engineering Drawings with CAD applications

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

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL