

Tárgytematika / Course Description CAD Applications 1.

EKNB_KETA029

Tárgyfelelős neve /

Teacher's name: dr. Kosztolányi-Iván Gabriella

Félév / Semester: 2024/25/1

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 0/0/3

Tárgy féléves óraszám /

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

OKTATÁS CÉLJA / AIM OF THE COURSE

This course is an introduction to computer aided graphics drawing techniques. It also provides a guide to interpreting and drawing basic civil engineering technical drawings.

After completing the course the student:

- knows and uses the AutoCAD user interface, keyboard, mouse pointer, graphical screen and can upload technical drawings to the computer
- knows basic concepts and uses different techniques for computer drawing
- knows how to use layers
- uses basic and advanced AutoCAD drawing and modifying tools
- uses and follows appropriate technical drawing standards and practices
- can create and modify texts, dimensions and tables on drawings
- can create cross sections and area fills
- can create blocks and assign attributes
- create page layouts and print drawings
- understands and draws basic engineering technical drawings

TANTÁRGY TARTALMA / DESCRIPTION

1. Introduction to AutoCAD - user interface
2. Viewports and their tools - basic screen operations, settings, coordinate input modes
3. Editing tools - drawing tools, object grids, layers, drawing element properties
4. Creating 2D drawing objects - drawing 2D basic elements of CAD geometry

5. Modify drawing objects 1 - basic geometric editing operations
 6. Modify drawing objects 2 - advanced editing operations
 7. Complex editing task - editing complex drawing elements
 8. Annotations - text and table editing, hatching
 9. Blocks - block and attribute block drawing element
 10. Dimensioning - dimensioning of drawings, complex dimensioning tasks
 11. Printing - printing from model space, paper space layout settings, printing from paper space
 12. Complex engineering design task with CAD tools 1 - survey, contour lines, editing contour lines
 13. Complex engineering design task with CAD tools 2 - drawing exercises related to road design
 14. Complex engineering design task with CAD tools 3 - drawing exercises related to earthworks
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SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Requirements:

To reach the signature and the grade at the end of the semester:

- attendance on the lectures is strongly recommended
- in case of absence the class work must be prepared and uploaded to the given platform
- write two assessments during the semester
- prepare one homework during the semester

Grading method:

- to complete the course the 60% of the each part (mid-term exam, final exam, homework) and the total score must be achieved
- in case of unsuccessful exams (mid-term exam, final exam) a possibility to write retake exam is provided on the last week

Grades:

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> 0 – 59 % | 1 |
| <input type="checkbox"/> 60 – 69 % | 2 |
| <input type="checkbox"/> 70 – 79 % | 3 |
| <input type="checkbox"/> 80 – 89 % | 4 |
| <input type="checkbox"/> 90 – 100 % | 5 |
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KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

Class material uploaded on the SzE-learning page of the subject.

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL

- AutoCAD help! (F1)
- James D. Bethune: Engineering graphics with AutoCAD 2017. Peachpit Press, ISBN 978-0134507620
- Paul Richard: Introduction to AutoCAD 2024. A modern perspective. Peachpit Press, ISBN 978-0138232856