

## Tárgytematika / Course Description CAD Applications 2.

EKNB\_KETA030

**Tárgyfelelős neve /**

**Teacher's name:** dr. Kosztolányi-Iván Gabriella

**Félév / Semester:** 2024/25/2

**Beszámolási forma /**

**Assesment:** Folyamatos számonkérés

**Tárgy heti óraszám /**

**Teaching hours(week):** 0/0/3

**Tárgy féléves óraszám /**

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

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### OKTATÁS CÉLJA / AIM OF THE COURSE

This course includes knowledge in BIM (Building Information Modelling). Students will learn 3D modelling using the Nemetschek Allplan software. Based on the model you will be able to make building documentation and quantity extraction automatically.

This course is an introduction to designing Civil Engineering infrastructures. Students will gain skills in designing surfaces based on geodesy points, designing road alignment, and many more.

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### TANTÁRGY TARTALMA / DESCRIPTION

1. BIM: Nemetschek Allplan basic concepts
2. BIM: Familiarization with the software and its interface
3. BIM: Applying BIM principles, putting the building model on BIM
4. BIM: Building a BIM Building Model; Listing, material collection
5. BIM: Possibilities of using model information
6. Civil 3D: User interface, workspace settings, points, surfaces
7. Civil 3D: Horizontal alignment
8. Civil 3D: Vertical alignment
9. Civil 3D: Assemblies
10. Civil 3D: Corridor, cross-sections

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### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Requirement type of the course is continued report. The condition to get a signature is the regular attendance at classes and completion of final module assignments on the satisfactory level. In the case of absence, the class work has to be made up on the basis of the uploaded class material.

Two assignments has to be prepared individually based on the two modules of the course (BIM; AutoCAD Civil3D). The detailed description of the assignments is given at the SzE-learning platform of the course. The total number of

points that can be reached with each assignment is 5. A minimum of 2 points must be reached with each assignment to get the signature and grade at the end of the semester. The average of the two successful assignments rounded up to the nearest whole number gives the grade.

If the satisfactory mark is not achieved in a module, that module may be corrected according to the assignment descriptions specified mode until the first week of the exam period.

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## **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

Lectures and auxiliary material continuously uploaded to the SZE-learning platform of the course.

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## **AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL**

BIM: Allplan tutorials (<https://www.allplan.com/cad-tutorials/allplan-2020-tutorials/>)

Civil 3D 2024 Help (<https://help.autodesk.com/view/CIV3D/2024/ENU/>)

Civil 3D Tutorials (<https://help.autodesk.com/view/CIV3D/2024/ENU/?guid=GUID-B6CF98F9-FF6F-4FF5-8022-60EB21A611A7>)