

## Tárgytematika / Course Description BIM - Building Information Modelling

EKNB\_SETA071

Tárgyfelelős neve /

Teacher's name: Ajtayné Dr. Károlyfi Kitti

Félév / Semester: 2023/24/1

Beszámolási forma /

Assesment: Folyamatos számonkérés

Tárgy heti óraszám /

Teaching hours(week): 2/0/0

Tárgy féléves óraszám /

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

### OKTATÁS CÉLJA / AIM OF THE COURSE

The course aims to present the basics of Building Information Modeling (BIM) focusing on its civil engineering applications. Lectures including theory, practical use, and case studies of BIM will help students to understand the method, its benefits, and challenges. With the use of the Nemetschek Allplan software students will learn the basics of using BIM in practice.

### TANTÁRGY TARTALMA / DESCRIPTION

1. Introduction to BIM, discussion of homework
2. Introduction to Allplan, basic settings
3. 3D modeling practice - steel structure 1.
4. 3D modeling practice - steel structure 2.
5. 3D modeling practice - reinforced concrete structure 1.
6. 3D modeling practice - reinforced concrete structure 2.
7. Model views, documentation
8. Consultation with homework
9. Collaboration, data exchange
10. Attributes, interactive lists, quantity takeoff
11. 3D reinforcement 1.
12. 3D reinforcement 2.
13. Further applications of BIM
14. Consultation with homework

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

The homework (a BIM model) must be done and submitted until the deadline. The mark will be determined based on the quality of the homework. The evaluation aspects of the homework will be presented during the first lesson.

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## **KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL**

C. Eastman, P. Teicholz, R. Sacks, K. Liston, BIM Handbook - A Guide to Building Information Modeling for Owners, Managers, Designers, Engineers and Contractors, John Wiley & Sons, Available at: [http://bim.pu.go.id/assets/files/BIM\\_Handbook\\_A\\_Guide\\_to\\_Building\\_Information\\_Modeling\\_for\\_Owners\\_Managers\\_Designers\\_Engineers\\_and\\_Contractors\\_Second\\_Edition.pdf](http://bim.pu.go.id/assets/files/BIM_Handbook_A_Guide_to_Building_Information_Modeling_for_Owners_Managers_Designers_Engineers_and_Contractors_Second_Edition.pdf)

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## **AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL**

A. Niedermaier, R. Bäck, Allplan BIM Compendium Theory and Practice - based on the official IFC4 release, Allplan GmbH, Munich, 2016.