COURSE DESCRIPTION CARD - SYLLABUS

Course name

BIM in Environmental Engineering

Course

Field of study

Environmental Engineering

Year/Semester

4 / 7

Area of study (specialization)

Profile of study

general academic

Level of study

First-cycle studies

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
15	15	
Tutorials	Projects/seminars	

Number of credit points

3

Lecturers

Responsible for the course/lecturer:

dr inż. Tomasz Schiller

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tel. 616652078

Faculty of Environmental Engineering and Energy

ul. Berdychowo 4, 61-131 Poznań

Responsible for the course/lecturer:

Prerequisites

1. Knowledge:

Knowledge aquired from subject Technical drawing and CAD.

2. Skills:

Skills aquired from subject Technical drawing and CAD.

3. Social competencies:

Awareness of need to constantly update and supplement knowledge and skills.

Course objective

Aquire of basic knowledge and skills in the field of BIM (Building Information Modeling).

Course-related learning outcomes

Knowledge

1. Student knows basis of BIM, knows what for it serves, understands the differences between CAD and BIM (effect achieved during lectures) - [KIS_W07]

2. Student has knowledge of using BIM in chain - project, construction management, building management (effect achieved during lectures) - [KIS_W07]

3. Student knows basic capabilities of BIM software, has knowledge of the information that is stored in model (effect achieved during lectures) - [KIS_W07]

Skills

1. Student can operate in three-dimensional space of computer object (effect achieved during laboratories) - [KIS_U02, KIS_U10]

2. Student can prepare a simple model in BIM environment (effect achieved during laboratories) - [KIS_U02, KIS_U10]

3. Student can retrieve information from BIM model (effect achieved during laboratories) - [KIS_U02, KIS_U10]

Social competences

1. Student understands the need for teamwork in solving theoretical and practical problems (effect achieved during laboratories) - [KIS_K02, KIS_K03]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lectures

Written final multianswer test (effects W1 to W3). Mark scale (percentage / mark): 0-50 ndst, 51-60 dst, 61-70 dst+, 71-80 db, 81-90 db+, 91-100 bdb

Laboratory (effects U1 do U3 oraz K1). Tasks prepared by individual students will be assesed.

Mark scale (percentage / mark): 0-50 ndst, 51-60 dst, 61-70 dst+, 71-80 db, 81-90 db+, 91-100 bdb

Programme content

Introduction to BIM, basic terminology, BIM versus CAD. BIM models and its features. BIM software overview. Interoperability of BIM models. Rules for creating BIM object model. Objects, objects families, objects classification, relations, parameters. Modifying object features.

Teaching methods

Lectures (conversatory and problem elements of lectures) using multimedia presentation.

Laboratory clases.

Bibliography

Basic

Additional

Breakdown of average student's workload

	Hours	ECTS
Total workload	75	3,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes, preparation for tests) [1]	45	2,0

[1] delete or add other activities as appropriate