POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

COURSE DESCRIPTION CARD - SYLLABUS

Course name

BIM in Environmental Engineering

Course

Field of study	Year/Semester
Environmental Engineering Extramural First	4/8
Area of study (specialization)	Profile of study
	general academic
Level of study	Course offered in
First-cycle studies	polish
Form of study	Requirements
part-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
10	8	
Tutorials	Projects/seminars	

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr inż. Tomasz Schiller

email: tomasz.schiller@put.poznan.pl

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.

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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

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

Laboratory clases.

Bibliography

Basic

Kasznia D., BIM w praktyce. Standardy. Wdrożenia. Case Study, Wydawnictwo Naukowe PWN, Warszawa 2017

Additional

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	18	1,0
Student's own work (literature studies, preparation for laboratory classes, preparation for tests) [1]	32	1,0

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[1] delete or add other activities as appropriate