



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Building facility management [N2Bud1>ZOB]

### Course

Field of study

Civil Engineering

Year/Semester

2/4

Area of study (specialization)

Construction Engineering and Management

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

### Number of hours

Lecture

10

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

10

### Number of credit points

2,00

### Coordinators

dr inż. Tomasz Thiel

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### Lecturers

### Prerequisites

**Knowledge:** The student knows the basics of construction, building physics, planning and calculation of construction process He knows the issues related to the repair and modernization of buildings and the basics of assessing the effectiveness of investments **Skills:** The student is able to describe the technical condition of individual building elements, define the type and scope of damage, calculate the repair works and plan their course in time. He can propose changes in building and determine the scope of modernization works, as well as estimate the cost of these works and the time course. He can collect the information about the building from various sources **Social competences:** The student is aware of having the fullest possible technical, legal, economic and environmental knowledge about the building structure, which is the basis for construction management. He knows that at the construction management stage he will cooperate with various participants in this process.

## Course objective

Getting to know the basics of building facility management, selected issues related to the operation and maintenance of buildings (consumption of buildings; energy assessment of the building and premises; influence to environmental; specificity and conditions of operation, planning of building exploitation and building maintenance). Preparation and analysis of a management plan for a building. Facility manager - getting to know the scope of expectations and competences in the area of building management. The use of BIM in construction management.

## Course-related learning outcomes

Knowledge:

The student knows what a real estate as an object of management and he knows what are the functions of the manager

He knows what is the maintenance and exploitation of the building and building equipment.

He knows how to execute a real estate management plan and build variants of a real estate management strategy

He knows the scope of tasks, basic domains and areas of Facility Manager integration, and knows the role of BIM in the management of construction facilities

Skills:

The student is able to estimate the degree of wear of building elements and the a whole building

He can determine the types and structure of costs and revenues at the stage of building exploitation

He can prepare a current financial analysis for the needs of building operation and can prepare a developed property management plan

He knows what a BIM model looks like for an existing building, and what is the next procedure to achieve building management with BIM

Social competences:

The student is able to formulate an opinion on the exploitation of the building and the structure of their costs and revenues.

He knows and understands the importance of cooperation with all participants involved in the building management process

He knows what mean consideration of the technical, economic, environmental and social aspects in the preparation of a property management plan and in the whole building management process

## Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

Written credit for the lecture

Execution of 3 exercises covering selected elements of the building management plan

## Programme content

Basics of building objects management. Developed property management plans. Selected issues regarding the operation and maintenance of buildings (consumption of buildings; energy assessment of the building and premises; impact of the building on the environment; specificity and conditions of operation, planning of the operation and maintenance of buildings). Examples of software for building maintenance and management. Facility management in building management.

## Course topics

none

## Teaching methods

Information lecture with a multimedia presentation

Project - problem method: case and SWOT analysis, project method (team work)

## Bibliography

#### Basic

1. Podstawy zarządzania nieruchomościami, Gawron H., Wyd. Uniw. Ekon. w Poznaniu, Poznań, 2010
2. Zużycie łączne budynków w szacowaniu i zarządzaniu nieruchomościami, Żróbek R., Educaterra, Olsztyn, 1998
3. Eksploatacja nieruchomości budynkowych, poradnik zarządcy, Olearczuk E., COIB, Warszawa, 2005
4. Plany zarządzania nieruchomościami - modele, metody narzędzia, Sobczak A., Wyd. Poltext, Warszawa, 2010

#### Additional

1. Podstawy zarządzanie nieruchomościami,, pr. zb. pod. red. M. Bryxa, Wyd. Poltext, Warszawa, 2009
2. Przygotowanie planu zarządzania nieruchomością, Gawron H., AE w Poznaniu, Poznań, 2008

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	20	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00