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
Information Technology in Construction

Course

Field of study	Year/Semester
Construction	1/1
Area of study (specialization)	Profile of study
Construction Engineering and Management	general academic
Level of study	Course offered in
Second-cycle studies	English
Form of study	Requirements
full-time	compulsory

Number of hours

Lecture	Laboratory classes	Other (e.g. online)
30	15	0
Tutorials	Projects/seminars	
0	0	

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

dr inż. Piotr Nowotarski

e-mail: piotr.nowotarski@putpoznan.pl

tel: 616652190

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 5, 60-965 Poznań

Responsible for the course/lecturer:

Prerequisites

The student has basic knowledge of the basics of construction; The student is able to obtain information from the indicated sources and analyze engineering activities undertaken; The student is aware of the need to constantly update and supplement construction knowledge and take responsibility in professional work; The student is aware of the existence of information issues in construction

Course objective

The student's acquisition of basic knowledge and skills in the field of information technology in construction.

Course-related learning outcomes

Knowledge

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

1. Know in detail currently utilised construction materials and products, their properties and testing methods as well as production and assembly technologies.

2. Have detailed knowledge in the field of operation algorithms of selected software supporting the analysis and design of building facilities, which are also useful to plan and manage construction projects, including Building Information Modelling (BIM).

3. Have detailed knowledge of geodesic compilations and measurement methods applied in implementation, inventory, diagnostic and control works in building investment process.

Skills

1. Use advanced specialized tools in order to search for useful information, communication and in order to obtain software supporting the designer and organizer of building engineering works.

2. Ae able to prepare an introductory economic analysis of proposed solutions and undertaken engineering activities; can prepare a cost calculation and a work schedule, contract and business plan of a building project; are able to manage building processes, define duties and tasks in investment and building control.

3. Can estimate hazards of building projects and building operation, implement suitable safety rules and prepare work standards as well as quality management procedures. .

Social competences

1. Take responsibility for the reliability of working results and their interpretation.

2. Understand the need to transfer to the society the knowledge about building engineering, transfer the knowledge in a clear and easily comprehensible manner.

3. Are ready to think and act in a business-like way.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

As a form of measuring / assessing student work, a final test is carried out (during the last class)

Grade scale determined% from:

90 very good (A)

85 good plus (B)

75 good (C)

65 sufficient plus (D)

55 satisfactory (E)

below 54 insufficient (F)

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

Programme content

Lecture 1 - Introduction,

Lecture 2 - Introduction to Information Technology

Lecture 3 - Introduction to Information Technology II

Lecture 4 - Introduction to Information Technology III

Lecture 5 - Introduction to information technologies in construction

Lecture 6 - Information technology - practical aspects

Lecture 7 - Information technology - practical aspects II

Lecture 8 - Information technology - practical aspects III

Lecture 9 - Information technology in construction - practical aspects

Lecture 10 - The use of information technologies in construction

Lecture 11 - Use of information technologies in construction II

Lecture 12 - Use of information technologies in construction III

Lecture 13 - Examples - information technology in construction

Lecture 14 - Examples - information technology in construction II

Lecture 15 - Credit

Laboratories 1 - Introduction

Laboratories 2 - Practical aspects of information technology

Laboratories 3 - Practical aspects of information technology II

Laboratories 4 - Practical aspects of information technology III

Laboratories 5 - Practical aspects of information technology IV

Laboratories 6 - Practical aspects of information technology V

Laboratories 7 - Practical aspects of information technology VII

Laboratories 8 - Creditt

Teaching methods

Pyramid discussion; Panel discussion; The classic problem method; Teaching games; Exchange of ideas; Informative lecture; Problem lecture; Conversational lecture; Program text; Work with a book; Talk;

POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

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

Lecture reading; Demonstration method; Laboratory method; Production exercise method; Method of experiments; Observation and measurement method; Project method; Leading text method; Workshop method; Show.

Bibliography

Basic

1. Prauzner, T. (2012). Technologia informacyjna–wybrane problemy społeczne. Edukacja-Technika-Informatyka, 3(2), 39-44.

2. Kamieński, Ł. (2009). Technologia i wojna przyszłości: Wokół nuklearnej i informacyjnej rewolucji w sprawach wojskowych. Wydawnictwo UJ.

3. Kiedrowicz, G. (2009). Technologia informacyjna w turystyce i rekreacji. Radom: Wydawnictwo Instytutu Technologii i Eksploatacji PIB.

Additional

1. Zieliński, T. (2012). Technologia informacyjna a kryzys finansów. Finanse w niestabilnym otoczeniu-dylematy i wyzwania. Rynki finansowe, 23-33.

2. Osmańska-Furmanek, W., & Furmanek, M. (2004). Technologia informacyjna jako narzędzie w procesie rozwoju zawodowego nauczyciela,(w:) W. Furmanek/A. Piecuch (red.), Dydaktyka informatyki: problemy metodyki, 249-258.

3. Koba, G. (2002). Technologia informacyjna. Migra.

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	45	1,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam,) [1]	15	0,5

---

[1] delete or add other activities as appropriate