Tadeusz Kosciuszko Cracow University of Technology

Course Card

Faculty of Civil Engineering

Field of study: Civil Engineering

Study profile: general academic

Study form: full-time

Field of study code: BUD

Study cycle: 1st

Specialty: no specialty

1 COURSE INFORMATION

Course name	Kosztorysowanie
Course name in English	Cost Estimation
Course code	WIL BUD oIS C37 24/25
Course category	Basic
No. of ECTS points	2.00
Semester	5

2 CLASS TYPE, NUMBER OF HOURS ACCORDING TO THE STUDY PLAN

Semester	Lecture	Class exercise	Laboratory	Computer lab	Design exercise	Seminar
5	15	0	0	15	0	0

3 COURSE OBJECTIVES

Objective 1 To provide students with information related to the quantity surveying in construction projects. To get students acquainted with methods of cost estimation. To familiarize students with various types of cost analyses carried out during construction project.

Objective 2 To get students acquainted with applied formulas of cost estimation. To familiarize students with cost estimation elements. To familiarize students with sources of technical and financial information required in

cost estimation. To prepare students (at a basic level) to take part in research within the field of construction cost management.

4 PREREQUISITES IN TERMS OF KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1 Knowledge on building materials.

2 Knowledge on types of building structures and their elements.

3 Knowledge on technology of construction works.

5 LEARNING OUTCOMES

LO1 Knowledge Basic knowledge within the field of quantity surveying and cost estimation.

LO2 Skills Basic knowledge on applied types of cost analyses carried out during construction project.

LO3 Knowledge Ability to solve basic problems within the field of quantity surveying. Ability to estimate cost of a simple construction element. Ability of basic analyses of cost data.

LO4 Knowledge Ability to solve simple cost estimation problem working alone or in team. Being responsible for obtained results of cost estimations.

6 COURSE CONTENT

Laboratory computer		
No.	Subject matter of the course Detailed description of thematic blocks	No. of class hours
K1	Taking-off and quantity analyses of simple construction elements.	4
K2	Cost estimations of simple construction elements.	7
K3	Analysis and presentation of quality analyses and cost estimations results.	4

Lecture		
No.	Subject matter of the course Detailed description of thematic blocks	No. of class hours
L1	Introduction to quantity surveying. Definitions and concepts of cost estimation in construction projects.	2
L2	Quantity take-off. Problem of measuring quantities of construction works. Methods of quantity measuring. Sources of technical information for cost estimation. Workshop on quantity take off.	3
L3	Elements of cost estimation. Direct costs, indirect costs and profit. Sources of information about the demand for resources for cost estimation. Sources of financial information for cost estimation.	3

Lecture		
No.	Subject matter of the course Detailed description of thematic blocks	No. of class hours
L4	Cost estimation methods and formulas according to standards applied in Poland. Simplified method and detailed methods of cost estimation. Workshop on cost estimation.	3
L5	Legal conditions and principles of cost estimation for public procurement in Poland.	1
L6	Types of cost estimation documents regarding the objectives of cost estimation process. Functions of cost estimation documents. Chosen problems of quantity measuring, quantity surveying and cost estimation.	3

7 TEACHING TOOLS

N1 Lectures

N2 Multimedia presentations

N3 Computer laboratory tasks

N4 Workshops

N5 Discussion

N6 Other

8 Student workload

Activity form	Number of hours of activity
Hours realized in contact with the teacher	
Hours resulting from the study plan	30
Consultation hours	0
Exams and tests during session	3
Hours of autonomous student work	
Preparing for classes, studying literature	15
Developing results	5
Preparing of reports, projects presentations, discussion	5
Total number of hours devoted to the subject	**58**
Total number of ECTS points	2.00

9 Methods of grading

Partial grades

F1 Reports from computer laboratory tasks and assignments.

Summary grade

P1 Final test

Conditions for passing the course

L1 Completion of all of the computer laboratory tasks within the deadlines.

L2 Positive grade on final test.

Assessment of activity without teacher participation

B1 Assessment of the reports and involvement in the discussion