



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Podstawy zarządzania jakością

Course

Field of study

Year/Semester

Construction

3/5

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

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

10

0

0

Tutorials

Projects/seminars

0

10

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

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Wydział Inżynierii Lądowej i Transportu

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Responsible for the course/lecturer:

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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 issues of management in construction

Course objective

Learning and expanding knowledge of the basic principles of construction, management in construction in the aspect of implementation of a construction project. Sensitizing the student to practical aspects of construction management



Course-related learning outcomes

Knowledge

1. Have detailed knowledge of the impact of building investments on the environment and understand the need to implement the rules of sustainable development.
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. Know in detail the rules of developing the procedures of construction project quality management; have knowledge of the effectiveness, costs and timing of construction projects under risk and uncertainty conditions.
4. Have the basics of general knowledge in the field of developing various forms of entrepreneurship in building engineering.

Skills

1. Utilizing the obtained knowledge, they can select appropriate (analytical, numerical, simulation, experimental) methods and tools to solve technical problems.
2. Applying scientific rules and skills, are able to formulate and test hypotheses related to simple research problems, in order to solve engineering, technological and organisational problems in construction engineering; can prepare studies preparing for research work.
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. Can realise that it is necessary to improve professional and personal competence; are ready to critically evaluate the knowledge and received content..
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)

Programme content

Lecture 1 - Introduction

Lecture 2 - Characteristics of production systems open / closed (examples), benefits of introducing quality management, the genesis of quality issues (in general) breakthrough events),

Lecture 3 - The genesis of quality management in the domestic construction industry, selected definitions of quality (including the basic definition of quality), the role of the performance / operation system in quality management, the course of calculations at home quality (example), basic product categories (+ examples), differentiation of parity goods / services in various fields of activity (examples), definition of the quality class, conditions of the quality classes (examples), consequences of non-compliance in relation to the investor and the contractor,

Lecture 4 - Social consequences of discrepancies, differences between different types of measurements, differences between diversity and variability, the role of observer's knowledge in managing variability, the importance of variability at the strategic and operational level, Shewhart classification of causes of variability

Lecture 5 - Assessment

Project 1 - Introduction

Project 2 - Overview of the project I.

Project 3 - Overview of the project II

Project 4 - Overview of the project III

Project 5 - Credit

Teaching methods

Pyramid discussion; Panel discussion; The classic problem method; Exchange of ideas; Computer applications, Informative lecture; Problem lecture; Conversational lecture; Program text; Work with a book; Talk; Lecture reading; Demonstration method; ; Production exercise method; Method of experiments; Observation and measurement method; Project method; Leading text method; Workshop method; Show.

Bibliography



Basic

1. Myszewski J. M. Po prostu jakość. Podręcznik zarządzania jakością. Wydawnictwa Akademickie i Profesjonalne. Warszawa 2009
2. HAMROL A.: Zarządzanie jakością z przykładami. Wydawnictwo Naukowe PWN, Warszawa 2008

Additional

- . Advances in manufacturing II. Vol. 3, Quality engineering and management / Adam Hamrol, Marta Grabowska, Damjan Maletic, Ralf Woll., Springer 2019
2. Quality production improvement : nowe wyzwania / pod redakcją Robert Ulewicz, Manuela Ingaldi Częstochowa : Oficyna Wydawnicza Stowarzyszenia Menedżerów Jakości i Produkcji, 2019
3. Rumane, Abdul Razzak Quality management in construction projects. CRC Press/Taylor & Francis Group, 2018
4. Zarządzanie jakością - Wytyczne zarządzania jakością w projektach PN-ISO 10006 / Polski Komitet Normalizacyjny. PKN, Warszawa 2018

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	20	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	30	1,0

¹ delete or add other activities as appropriate