# STUDY MODULE DESCRIPTION FORM

| Name of the module/subject | Code |
|---|---|
| **Quality Management in Civil Engineering** | **1010102121010110112** |

| Field of study | Profile of study (general academic, practical) | Year /Semester |
|---|---|---|
| **Civil Engineering second-cykle studies** | **general academic** | **1 / 2** |
| Elective path/specialty | Subject offered in: | Course (compulsory, elective) |
| **Costruction Engineering and Management** | **Polish** | **obligatory** |

| Cycle of study: | Form of study (full-time,part-time) |
|---|---|
| **Second-cycle studies** | **full-time** |

| No. of hours | No. of credits |
|---|---|
| Lecture: **15** Classes: **-** Laboratory: **15** Project/seminars: **15** | **4** |

| Status of the course in the study program (Basic, major, other) | (university-wide, from another field) |
|---|---|
| **major** | **from field** |

| Education areas and fields of science and art | ECTS distribution (number and %) |
|---|---|
| **technical sciences** | **4 100%** |
| **Technical sciences** | **4 100%** |

## Responsible for subject / lecturer:

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## Prerequisites in terms of knowledge, skills and social competencies:

| | | |
|---|---|---|
| 1 | **Knowledge** | Basic information about the role of quality management in managing |
| 2 | **Skills** | Can analyze the typical manufacturing process |
| 3 | **Social competencies** | He is aware of the social consequences of unconformity |

## Assumptions and objectives of the course:

Understanding the concept of quality management (lectures) and methods for its implementation and practical skills to create quality system documentation (classes)

## Study outcomes and reference to the educational results for a field of study

### Knowledge:

1. He knows the theoretical basis for quality management - [K2_W10]
2. He knows the tools, techniques, and principles of quality management - [K2_W10]
3. He knows the rules of the system of quality management in the construction industry - [K2_W10]

### Skills:

1. Able to analyze the process of anticipating and preventing the construction quality problem - [K2_U12]
2. Able to develop and run a system of continuous quality improvement mechanism - [K2_U12]
3. Can use common tools of quality management - [K2_U12]

### Social competencies:

1. Isolated complements and extends knowledge in quality management - [K2_K03]
2. Able to work independently, to work in a team and manage it - [K2_K01]
3. Follows the rules of ethics - [K2_K11]

## Assessment methods of study outcomes

Student Work includes:
* The development and presentation of a selected topic in the subject
* Project to improve the system of quality management
* Written test

Rating scale (test):
more than 100 targeted
91-100 very good (A)
81 - 90 good plus (B)
71 - 80 Good (C)
61 - 70 is sufficient plus (D)
51 - 60 satisfactory (E)
insufficient under 50 (F)

## Course description

Introduction, rationale implementation of quality management systems. Development of quality engineering genesis of quality management systems, current status and prospects for development. Authorities in the field of quality management (Deming's ideas, Juran, Crosby on white and others) - the concept of quality engineering based on their assumptions. The essence of Total Quality Management (assumptions, the basic elements). System measures, methods and tools of quality management and teamwork. Mutual communication, motivation and organizational culture.

## Basic bibliography:

1. Zarządzanie jakością z przykładami, Wydawnictwo Naukowe PWN, Warszawa 2005, 2008
2. i Eckers Georges, Rewolucja Six Sigma ? jak General Electric i inne przedsiębiorstwa zmieniały proces w zyski, Akademia Białego Kruka, MT Biznes, Warszawa 2010

## Additional bibliography:

1. PO PROSTU JAKOŚĆ. PODRĘCZNIK DO ZARZĄDZANIA JAKOŚCIĄ Jan M. Myszewski, 2009

## Result of average student's workload

| Activity | Time (working hours) |
|---|---|
| 1. Participation in lectures / seminars | 30 |
| 2. Participation in project in quality system | 15 |
| 3. Preparation to test | 15 |
| 4. Elaboration of project | 20 |

## Student's workload

| Source of workload | hours | ECTS |
|---|---|---|
| Total workload | 100 | 4 |
| Contact hours | 50 | 2 |
| Practical activities | 30 | 2 |