|   |  | STUDY MODULE D   | ESCRIPTION   | FORM                                |   |  |  |  |
|---|--|--|--|-------------------------------------|---|--|--|--|
|   | f the module/subject   |  |  | Code<br>1010101161010117438         |   |  |  |  |
| Field of  |  | ry management  | Profile of study   |                                     | Year /Semester                                |  |  |  |
| Civil   | Engineering Fir  | st-cycla Studios   |  | (general academic, practical)       |   |  |  |  |
|   | path/specialty   |  | Subject offered i  |                                     | <b>3 / 6</b><br>Course (compulsory, elective) |  |  |  |
|   |  |  |  | ish                                 | elective                                      |  |  |  |
| Cycle o   | Cycle of study:  |  |  | Form of study (full-time,part-time) |   |  |  |  |
|   | First-cyc  | cle studies  | full-time  |                                     |   |  |  |  |
| No. of hours  |  |  |  |                                     | No. of credits                                |  |  |  |
| Lectu   | Classes  |  | Project/semin  |                                     |   |  |  |  |
| Status of   |  | program (Basic, major, other)<br><b>other</b>                  | (university-wide, fr   |                                     | a)<br>sity-wide                               |  |  |  |
| Educati   | on areas and fields of sci   |  |  |                                     | ECTS distribution (number<br>and %)           |  |  |  |
| dr h<br>ema<br>tel.<br>Wyd  | onsible for subje<br>ab. inż. Jerzy Pasławs<br>ail: jerzy.paslawski@pi<br>+48616652113<br>dział Budownictwa i In.<br>Piotrowo 5 60-965 Poz   | ski, prof. nadzw.<br>ut.poznan.pl<br>żynierii Środowiska       | Responsible for subject / lecturer:<br>mgr inż. Piotr Nowotarski<br>email: piotr.nowotarski@put.poznan.pl<br>tel. +48616652190<br>Faculty of Civil and Environmental Engineering<br>ul. Piotrowo 5 60-965 Poznań |                                     |   |  |  |  |
|   |  | is of knowledge, skills an                                     |  |                                     |   |  |  |  |
| 1   | Knowledge  | Knowledge about the role of qua                                | ality management in the management   |                                     |   |  |  |  |
| 2   | Skills   | Ability to analyze the functioning<br>quality problems         | g of the production system in order to detect the causes of  |                                     |   |  |  |  |
| 3   | Social competencies  | Awareness of the role of quality in technical culture industry |  |                                     |   |  |  |  |
| Assu  | mptions and obj  | ectives of the course:   |  |                                     |   |  |  |  |
|   | e the great potential to<br>rement system  | o improve the management of con                                | struction processes  | through the a                       | pplication of quality                         |  |  |  |
|   | Study outco  | mes and reference to the                                       | educational re   | sults for a                         | field of study                                |  |  |  |
| Knov  | vledge:  |  |  |                                     |   |  |  |  |
| 1. Stud   | dent knows the rules for   | or creating quality management pr                              | ocedures - [K_W15]   | ]                                   |   |  |  |  |
|   |  | s of quality problems - [K_W15]                                |  |                                     | _   |  |  |  |
|   |  | lures for implementing the system                              | of quality managem   | ient - [K_W15                       |   |  |  |  |
| Skills  |  | nement systems in compliance wit                               | h standards [K !!  | 13]                                 |   |  |  |  |
|   | <ol> <li>Can classify quality management systems in compliance with standards - [K_U13]</li> <li>Can describe the idea of improving the quality management system - [K_U13]</li> </ol> |  |  |                                     |   |  |  |  |
| 3. Able to analyze the production system to implement quality management procedures - [K_U13] |  |  |  |                                     |   |  |  |  |
| Social competencies:  |  |  |  |                                     |   |  |  |  |
| 1. Can point out the advantages and disadvantages of teamwork - [K_K07]                       |  |  |  |                                     |   |  |  |  |
| 2. Can formulate opinions on production processes - [K_K07]                                   |  |  |  |                                     |   |  |  |  |
| 3. Can omplement and extend the knowledge in the field of quality management - [K_K07]        |  |  |  |                                     |   |  |  |  |
| 1   |  |  |  |                                     |   |  |  |  |

# Assessment methods of study outcomes

- \* Active participation in lectures and exercises (also possible trip)
- \* Dot design. Develop quality management procedures

\* Written test

Rating scale (test):

above 100 excelled

91-100 very good (A)

81-90 good plus (B)

71- good 80 (C)

61-70 plus sufficient (D)

Adequate 51-60 (E)

50 below insufficient (F)

#### Learning Methods:

? lecture / problem lecture / lecture / lecture with multimedia presentation / story

? exercises / exercises based on the use of various sources of knowledge (film, photographs, archives, source texts, documents, statistical yearbooks, maps, Internet, etc.) / project method / case study (case study) / classic problematic method Project-laboratory / project methodology /

#### **Course description**

Characteristics of production systems open / closed (examples), the benefits of the introduction of quality management, the genesis of quality problems (general) - milestones), the genesis of quality management in the domestic construction industry, selected definitions of quality (including the fundamental definition of quality), the role of system performance / operation in quality management, calculation procedure in the house of quality (example), the basic categories of products (+ examples), differentiation parities goods / services in various fields of activity (examples), class definition quality, determinants of quality classes (examples), the consequences of non-compliance in respect the investor and the contractor, the social consequences of non-compliance, the differences between different types of measurements, the differences between diversity and variability, the importance of volatility in the strategic and operational level, the classification of the causes of variation by Shewhart), causes interference, and dualism variability

#### **Basic bibliography:**

### Additional bibliography:

## Result of average student's workload

| Activity            | Time (working hours) |
|---------------------|----------------------|
| 1. Lectures         | 15                   |
| 2. Projects         | 15                   |
| 3. Test preparation | 5                    |
| 4. Project defence  | 5                    |
| 5. Consultation     | 5                    |
| Studentie workload  |                      |

#### Student's workload

| Source of workload   | hours | ECTS |
|----------------------|-------|------|
| Total workload       | 50    | 2    |
| Contact hours        | 35    | 1    |
| Practical activities | 15    | 1    |