



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Product standardization and certification [N1IBiJ1>NiCW]

### Course

Field of study

Safety and Quality Engineering

Year/Semester

3/5

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

### Number of hours

Lecture

9

Laboratory classes

0

Other

0

Tutorials

9

Projects/seminars

0

### Number of credit points

2,00

### Coordinators

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prof. PP

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### Lecturers

### Prerequisites

Basic knowledge of defining and assessing the fulfillment of technical requirements for products and systems

### Course objective

The aim is to familiarize students with the elements that make up the process of standardization and certification of products, services, personnel and the acquisition of skills to prepare a standardization document and documents for product certification.

### Course-related learning outcomes

Knowledge:

1. The student has advanced knowledge of quality engineering in relation to products and processes [K1\_W07].
2. The student knows the fundamental dilemmas of modern civilization and development trends as well as best practices in the field of security engineering [K1\_W10].

#### Skills:

1. The student is able to design, using appropriate methods and techniques, an object, system or process that meets the requirements of safety engineering and make its initial economic assessment [K1\_U07].
2. The student is able to apply quality standards and norms in solving practical engineering tasks [K1\_U08].
3. The student is able to identify changes in requirements, standards and quality regulations [K1\_U12].

#### Social competences:

1. The student is able to notice cause-and-effect relationships in the implementation of set goals and use ranks in relation to the importance of alternative or competing tasks [K1\_K01].
2. The student is aware of the responsibility for his or her own work and is ready to comply with the principles of teamwork and be responsible for jointly performed tasks [K1\_K07].

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

#### Formative assessment:

- a) tutorials: assessment of current progress of task implementation
- b) lectures: answers to questions about the content of previous lectures,

#### Summative rating:

- a) tutorials: presentation of reports on exercises performed (arithmetic average of partial grades);
- b) lectures: Tests consist of test questions, scored on a two-point scale of 0, 1. Passing threshold: 50% of points.

### Programme content

The program covers the basics of the standardization and certification process of products, services, personnel and the preparation of a standardization document and documents for product certification.

### Course topics

The program covers the basics of the standardization and certification process of products, services, personnel and the preparation of a standardization document and documents for product certification.

The lecture program covers the following topics:

The concept and scope of standardization activities.

Documents regulating standardization activities.

Rules for developing and approving standards.

Classification and designation of standards.

Principles and procedure for accreditation of laboratories, staff, units certifying products and quality systems.

Principles and procedure for product certification.

Technical directives of the EU's new approach. Technical harmonization and standardization in the EU.

The exercise program covers the following topics

Development of an example of a company standard for a selected or indicated product.

Marks and certificates placed on products.

### Teaching methods

1. Lecture: multimedia presentation, illustrated with examples on the board.
2. tutorials: multimedia presentation illustrated with examples given on a blackboard and performance of tasks given by the teacher - practical exercises.

### Bibliography

#### Basic:

1. Łunarski J., Normalizacja i standaryzacja, OW PRz, Rzeszów, 2014
2. Łunarski J., Certyfikacja w działalności gospodarczej i rozwojowej, IMBGS Warszawa, 2015

#### Additional:

1. Kionka H., Poradnik normalizatora zakładowego, PKN Warszawa, 2001

2. Ustawa o normalizacji z dnia 12 września 2002 r.

#### Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	18	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	32	1,50