# POZNAN UNIVERSITY OF TECHNOLOGY



### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Occupational Health and Safety, university regulations, protection of intellectual properties

**Course** 

Field of study Year/Semester

Automatic Control and Robotics 1/1

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 compulsory

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

8

Tutorials Projects/seminars

# **Number of credit points**

1

### **Lecturers**

Responsible for the course/lecturer:

Responsible for the course/lecturer:

dr inż. Wiesław Grzybowski

email: wieslaw.grzybowski@put.poznan.pl

Faculty of Engineering Management

ul. Prof. Jacka Rychlewskiego, 60-965 Poznań

## **Prerequisites**

Student can define and describe Basic concepts and rules In the field of work organization and functioning and organizing of the safety system element.

Student can plan and evaluate functioning of the safety system. Student can also interpret the results of observations.

Student is aware of the importance of providing safety. Student is aware of the need of estabilishing security systems of the companies.

## **Course objective**

To familiarize students with rules, ordinances and regulations about health and safety at work.

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To acquaint students with the Basic issues of the methodology of human-oriented design as an operator and as an employee of machine service and other technical devices.

Students will be familiarized with major legal regulations from the area of the copyright of the industrial property law and with procedures concerning inventions.

### **Course-related learning outcomes**

# Knowledge

- 1. The graduate has the basic knowledge necessary to understand the non-technical determinants of engineering activities and of the automation and robotics process in industry and the household; the graduate is familiar with the basic principles of work safety and health applicable in industry. The graduate knows and understands the basic economic, legal and other conditions of different types of activities related to the given qualification.
- 2. Student knows and understand typical engeneering technologies In terms of studying degree course, and is up to date about actual development trends.
- 3. The graduate knows and understands basic concepts and principles in the field of intellectual property protection and copyright.

#### Skills

- 1. Is able to see non-technical, including environmental, economic and legal aspects of automation and robotics system design. Can take part in a debate present, assess and discuss various opinions and positions.
- 2. The graduate is able to apply the principles of health and safety at work. Can plan and organize work, both individually and as part of a team, in accordance with the principles of health and safety at work.

#### Social competences

- 1. The graduate is ready to critically evaluate his or her knowledge. The graduate understands the need for and knows the possibilities of continuous learning improving professional, personal and social competences, the graduate is able to inspire and organize the learning process of others.
- 2. Understand the effects of non-technical aspects and engineering activities including its impact on the environment and the associated responsibility for decisions.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Forming rating: Grade based on participation in solving problem tasks and active participation in classes

Summary rating: written test

#### **Programme content**

The basics of a system approach to safety: Safety and safety management, safety culture as the context of the safety system. The basics of system design theory. Safety models of systems. Hazards in the work and learning environment. The mechanisms of damage caused by technical objects. Estimating the

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chances of occurrence probabilities. Social and economical aspects of providing technical safety. The main principles of saving people who are electrocuted.

The idea of copyright. Basic legal regulation of the copyright. The notion of industrial property and forms of its legal protection. The plagiarism and the piracy - legal effects. The patent law, protection law and registration law. Types of creative works and forms of their protection: invention, utility model, industrial design, trademark, geographical indications, topography of integrated circuits, streamlining conclusion. Proceedings in the patent office the Republic of Poland. European patent.

# **Teaching methods**

Lecture with multimedia presentation.

# **Bibliography**

#### Basic

- 1. Projektowanie ergonomiczne; Edwin Tytyk, Wyd. Naukowe PWN, Warszawa-Poznań, 2001.
- 2. Poradnik BHP. Tom I: Praktyka, prawo, narzędzia, Kołodziejczyk E. (red.), Wyd. Forum, sp. z o.o., Warszawa, 2005
- 3. Barta J., Markiewicz R., Prawo autorskie i prawa pokrewne. Wyd. Zakamycze, 2004
- 4. Szewc A., Jyż G., Prawo własności przemysłowej. Wyd. C.H. Beck, Warszawa, 2004

### Additional

- 1. Makroergonomia; Leszek Pacholski, Aleksandra Jasiak, Wyd. Politechniki Poznańskiej, Poznań, 2011.
- 2. Podstawy ergonomii i fizjologii pracy; Jerzy Olszewski, Wyd. Akademii Ekonomicznej, Poznań, 1997.
- 3. Niezawodność człowieka w interakcji z procesem przemysłowym; Małgorzata Sławińska, Wyd. Politechniki Poznańskiej, Poznań, 2012

## Breakdown of average student's workload

	Hours	ECTS
Total workload	30	1,0
Classes requiring direct contact with the teacher	10	1,0
Student's own work (preparation of solutions to problem tasks,	20	1
preparation for the passing) <sup>1</sup>		

<sup>&</sup>lt;sup>1</sup> delete or add other activities as appropriate