

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS) pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

# **COURSE DESCRIPTION CARD - SYLLABUS**

#### Course name

Assessment of the implementation effects of Integrated Management Systems

#### Course

Field of study
Safety Engineering
Area of study (specialization)
Integrated Management of Safety in Organization
Level of study
Second-cycle studies
Form of study
part-time

Year/Semester 2/3 Profile of study general academic Course offered in Polish Requirements elective

### Number of hours

Lecture 0 Tutorials 10 **Number of credit points** 2 Laboratory classes 0 Projects/seminars 10 Other (e.g. online) 0

#### Lecturers

Responsible for the course/lecturer: Agnieszka Misztal, Ph.D., D.Sc., Eng. Professor at Poznan University of Technology

e-mail: agnieszka.misztal@put.poznan.pl phon: 61 6653437

Faculty of Engineering Management Institute of Safety and Quality Engineering ul. Rychlewskiego 2, 60-965 Poznań Responsible for the course/lecturer: Anna Mazur, Ph.D., Eng.

e-mail: anna.mazur@put.poznan.pl phon: 61 6653365

Faculty of Engineering Management Institute of Safety and Quality Engineering ul. Rychlewskiego 2, 60-965 Poznań



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Student should have basic knowledge in field of quality management, environmental management as well as systemic ensuring work safety, be able to interpret the basic concepts and rules associated with these systems, and be aware of the importance of their integration and the importance of work safety, environmental impact and quality of processes and products for its participants and recipients.

### **Course objective**

Presentation of knowledge necessary for theoretical and application skills of preparing and conducting an assessment of effectiveness of implementation an integrated management system in a production or service organization, and as a result of which indicate the directions of improvement of this system.

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

Knowledge

- knows issues related to area of occupational safety management (P7S\_WG\_03),

- knows issues of risk analysis, threats and their effects in the work environment (P7S\_WG\_05),

- knows issues in field of designing quality, environmental and health and safety management processes (P7S\_WG\_07),

- knows the issues of management system integration (P7S\_WG\_08),

- knows the basic methods of testing the effectiveness and adequacy of implemented system solutions (P7S\_WK\_03),

#### Skills

- is able to see and formulate relations between individual management systems (P7S\_UW\_03),

- is able to make a critical analysis of how the integrated management system functions and evaluate existing solutions (P7S\_UW\_06),

#### Social competences

- is aware of perception cause-and-effect relationships within the evaluated integrated management system and ranking the significance of alternative or competitive tasks (P7S\_KK\_01),

- is aware of the understanding of non-technical aspects and effects of engineering activities within the integrated management system and the related responsibility for decisions (P7S\_KK\_03),

- is able to plan and manage evaluation process of implementation integrated management system (P7S\_KO\_01).

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

Learning outcomes presented above are verified as follows:

Formative assessment:

- in scope of tutorials: based on assessments for the implementation of individual tasks,
- in field of projects: based on commitment to the next stages of the project.



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Summative rating: - in scope of tutorials: final test, in terms of projects: final project evaluation.

### **Programme content**

Identification of common requirements for components an integrated system (ISO 9001, ISO 45001, ISO 14001). Types of testing effects of integrated system implementation (documentation analysis, crossanalysis, audit). Stakeholders, process and system approach in relation to the relationship between individual integrated system standards. Use of resources to achieve goals and meet requirements (for individual areas of the integrated system). Measuring processes in context of requirements individual integrated system standards. Information flow within integrated system.

### **Teaching methods**

case study, exercise method, situational method, demonstration method, project

### Bibliography

Basic

11. Jasiulewicz-Kaczmarek M., Misztal A. (2014), Projektowanie i integracja systemów zarządzania projakościowego, Wydawnictwo Politechniki Poznańskiej, Poznań.

2. Lisiecka K. (2009), Systemy zarządzania jakością produktów: metody analizy i oceny, Wydawnictwo Akademii Ekonomicznej im. Karola Adamieckiego, Katowice.

3. Górny A. (2017), Zarządzanie bezpieczeństwem i higieną pracy w doskonaleniu warunków produkcji - implikacyjne aspekty wymagań normy ISO 45001, Problemy Jakości, 5, 2-8.

4. Kowal E., Kucińska-Landwójtowicz A., Misiołek A. (2013), Zarządzanie środowiskowe, Polskie Wydawnictwo Ekonomiczne, Warszawa.

#### Additional

1. PN-ISO 45001:2018-06, Systemy zarządzania bezpieczeństwem i higieną pracy. Wymagania i wytyczne stosowania, PKN, Warszawa.

2. PN-EN ISO 14001:2015-09/Ap1:2018-11, Systemy zarządzania środowiskowego. Wymagania i wytyczne stosowania, PKN, Warszawa.

3. PN-EN ISO 9001:2015-10/Ap1:2017-08, Systemy zarządzania jakością. Wymagania, PKN, Warszawa.

4. Misztal A. (2015), Kryteria brzegowe implementacji systemów zarządzania jakością w

przedsiębiorstwach branży motoryzacyjnej, Wydawnictwo Politechniki Poznańskiej, Poznań.



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# 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 tutorials	30	1,0
classes, data collection, project preparation) <sup>1</sup>		

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