COURSE DESCRIPTION CARD - SYLLABUS

Course name
Comprehensive safety management [S2IBiJ1>KZB]

Course

Field of study
Safety and Quality Engineering

Year/Semester
1/1

Area of study (specialization)
–

Profile of study
general academic

Level of study
second-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
15

Laboratory classes
0

Other
0

Tutorials
30

Projects/seminars
15

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

A student who starts this course should have basic knowledge of managing selected areas of the organization's functioning. He should also have knowledge of occupational health and safety, be able to indicate non-compliance with safety requirements and propose a way to remove them.

Course objective

Consolidating knowledge in the field of shaping occupational safety and familiarizing students with the basic issues related to the course of the occupational health and safety management process. Getting to know the issues related to the possibility of integrating the management systems implemented in the organization.

Course-related learning outcomes

Knowledge:
1. Student knows in depth the methods and theories used in solving the problems of modern safety engineering, quality, ergonomics and occupational safety as well as in crisis management [K2_W03].
2. Student knows in depth legal, ethical and social aspects taken into account in professional activity in the field of safety engineering, quality, ergonomics and occupational safety and crisis management

[K2_W10].
3. Student knows in depth the principles of creating and developing various forms of entrepreneurship related to safety engineering, quality, ergonomics and work safety as well as crisis management [K2_W12].

Skills:
1. Student is able to develop and properly apply methods and tools for solving complex problems characteristic of the area of safety engineering, quality, ergonomics and work safety as well as crisis management, or select and apply modern methods and tools [K2_U03].
2. Student is able to identify and recognize threats in the work environment, assess their impact on the individual, organization and its stakeholders, and indicate methods of conduct aimed at minimizing the effects of threats, taking into account pro-ecological solutions [K2_U10].

Social competences:
1. Student is critical of his knowledge, is ready to consult experts when solving cognitive and practical problems related to security management [K2_K01].
2. Student is ready to initiate activities related to improving safety [K2_K03].

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:
- exercises: assessment of reports on completed exercises and assessment of tasks to be performed by the student according to the following scale of points, from 0 to 5: very good - from 4.6 to 5; good plus - from 4.1 to 4.5; good - from 3.6 to 4.0; sufficient plus - from 3.1 to 3.5; sufficient - from 2.5 to 3.0; insufficient - from 0 to 2.4,
- project classes: assessment of progress in the implementation of the project task (according to the adopted schedule of the project task implementation) taking into account the activity during the classes according to the following scale of points, from 0 to 5: very good - from 4.6 to 5; good plus - from 4.1 to 4.5; good - from 3.6 to 4.0; sufficient plus - from 3.1 to 3.5; sufficient - from 2.5 to 3.0; insufficient - from 0 to 2.4,
- lectures: the acquired knowledge is verified by two 15-minute tests carried out at the 2nd and 5th lecture. Each test consists of 3-5 questions (test and open-ended) with different points (on a scale from 0 to 2); the student receives credit after reaching at least 50% of the possible points.
Summative assessment:
- exercises: the average of the grades for prepared reports of planned exercises, the student receives a grade according to the following scale of points, from 0 to 5: very good - from 4.6 to 5; good plus - from 4.1 to 4.5; good - from 3.6 to 4.0; sufficient plus - from 3.1 to 3.5; sufficient - from 2.5 to 3.0; insufficient - from 0 to 2.4,
- project classes: evaluation of the completed project, taking into account the assessment of progress in the implementation of the project task and activity during project classes, according to the following scale of points, from 0 to 5: very good - from 4.6 to 5; good plus - from 4.1 to 4.5; good - from 3.6 to 4.0; sufficient plus - from 3.1 to 3.5; sufficient - from 2.5 to 3.0; insufficient - from 0 to 2.4,
- lectures: acquired knowledge is verified during an oral exam. The student answers 3 open questions, which are scored on a scale from 0 to 2; receives a positive assessment after reaching at least 51% of the possible points.

Programme content

The program covers the following topics: Business continuity management; Multi-faceted methodology for business process risk analysis and management; Systemic health and safety management methodology.

Course topics

The lecture program covers the following topics:
Integrated occupational health and safety management;
Success factors of the organization's operation in relation to systemic occupational safety and health management;
Context of the organization, leadership, participation, accountability, OSH policy, comprehensive action planning;

Resilience engineering;
Aspects of organizational resilience, dynamic indicators, risk management standards;
Risk management tools;
Levels of excellence of the organization in relation to comprehensive occupational health and safety management, evaluation of improvement measures taken;
Digitalization and innovation in OSH;
Security policy, Zero Trust Security concept.

Exercises are completed sequentially and credited on the basis of completed tasks on the following topics:
Development of guidelines for the organization's security strategy;
Investigation of incidents;
Determination of baseline conditions for implementation of strategic objectives;
Assessing the level of ergonomics at work;
Defining conditions for monitoring the level of occupational safety;
Modeling causal chains;
Developing guidelines for decision-making processes using a decision table for optional preventive/ improvement actions;
Diagnosing factors related to stress and humanization conditions at work;
Designing a tool to conduct a zero occupational safety audit;
Designing a communication system related to previously developed guidelines for the organization's safety strategy;
Developing guidelines for visualizing knowledge management in the area of organizational safety;
Development of a database structure to obtain outcome indicators for the adopted safety strategy;
Development of guidelines for integrating the security strategy with the organization's business goals.

The project includes tasks that address the following topics:
Process mapping;
Presenting the process in the context of the organization;
Identifying risks;
Determination of critical resources, identification of risk boundaries;
Developing ways to monitor disruptions;
Presenting a business continuity plan.

Teaching methods

- lecture classes: a lecture of a conversational nature. The lecture is conducted using distance learning techniques in a synchronous mode. Acceptable platforms: eMeeting, Zoom, Microsoft Teams,
- exercises: the method of expert tables interchangeably with the method of cases,
- project: multi-stage cognitive task.

Bibliography

Basic:
1. Sławińska M., Kubasiński S., (2021). Designing the Conditions for the Proactive Attitude of Employees to Increase Organizational Resilience, European Research Studies Journal Volume XXIV Special Issue 5, p.
697-708.
2. Sławińska M., (2019), Ergonomic engineering of technological devices, Wydawnictwo Politechniki Poznańskiej, 129 s.
3. Kubasiński S., Sławińska M., (2019), Doskonalenie bezpieczeństwa pracy w świetle wymagań ISO 45001, [w:] Nauka i praktyka w bezpieczeństwie pracy, środowisku i zarządzaniu / red. Danuta Zwolińska - Katowice, Polska: Wyższa Szkoła Zarządzania Ochroną Pracy, s. 131-142.
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5. Sławińska M., Metodyka identyfikacji ergonomicznych parametrów istotnych dla bezpieczeństwa procesu pracy, J. Charytonowicz (red.), Wybrane kierunki badań ergonomicznych w 2012 roku, Wyd. Polskiego Towarzystwa Ergonomicznego PTErg oddział we Wrocławiu, s. 55-64, Wrocław 2012, ISSN 1898-8679, ISBN 978-83-926630-7-2.
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Katowice 2011, ISSN-1895-3794.
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8. PN-EN ISO 19011:2018-08, Wytyczne dotyczące auditowania systemów zarządzania, PKN, Warszawa.

Additional:
1. Kubasiński S., Sławińska M., (2021). Research on Corporate Social Responsibility (CRS) in Terms of Work Safety, European Research Studies Journal Volume XXIV Special Issue 5, p. 626-636.
2. Sławińska M., Wróbel K., (2021). Indicative Method of Human Failure in Sustainable Chain of Custody Management. European Research Studies Journal Volume XXIV Special Issue 5, p. 709-725.
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4. Czarnecka W., Butlewski M., Sławińska M., Kalemba A., (2019), The use of persuasive design in technical solutions supporting safety culture in the production enterprises - a case study [w:] Human Factors in Contemporary Organizations (XXXI International Seminar of Ergonomics), (red.) Leszek Pacholski, Krzysztof Hankiewicz, Beata Mrugalska, Marcin Butlewski, Adam Górny, USA : DEStech Publications, Inc., p. 122-130.
5. Sławińska M. i inni (2019), Skuteczność zarządzania operacyjnego na podstawie bazy informacji eksploatacyjnej, Zeszyty Naukowe Politechniki Poznańskiej, Seria: Organizacja i Zarządzanie, Nr 80, ss. 235-250.
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8. Kępka P. (2015), Projektowanie systemów bezpieczeństwa, BEL Studio, Warszawa, ISBN: 978-83-7798-232-7.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	60	2,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	40	1,50