

## COURSE GUIDE

<u>Subject name</u>	<b>Work safety management</b>
<u>Course of study</u>	<b>Quality and Production Management</b>
<u>The form of study</u>	<b>Full-time</b>
<u>Level of qualification</u>	<b>First</b>
<u>Year</u>	<b>II</b>
<u>Semester</u>	<b>IV</b>
<u>The implementing entity</u>	<b>Institute of Engineering Production</b>
<u>The person responsible for preparing</u>	<b>dr hab. inż. Dorota Klimecka-Tatar</b>
<u>Profile</u>	<b>General academic</b>
<u>ECTS points</u>	<b>3</b>

### TYPE OF TEACHING – NUMBER OF HOURS PER SEMESTER

<b>LECTURE</b>	<b>CLASS</b>	<b>LABORATORY</b>	<b>PROJECT</b>	<b>SEMINAR</b>
<b>15</b>	<b>30</b>	-	-	-

### COURSE AIMS

- C1. Getting to know the system of labor protection in Poland.
- C2. Presentation of the basic classes of hazards in the working environment.
- C3. Presentation of methods of risk assessment.
- C4. Characterization of the principles of accident and occupational diseases.
- C5. Overview of safety management and occupational health system and its integration with other management systems.

### ENTRY REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Student has knowledge of basic legal concepts.
2. Student has knowledge of physics with regard to noise and vibration and the electric current and the radiation.
3. Student has knowledge of chemistry in relation to the properties of elements and compounds.
4. Student has knowledge of biology, in regards of the structure and physiology of the human body.
5. Student has knowledge of the SI units.

### LEARNING OUTCOMES

- EU1. Student is able to characterize the system of labor protection in Poland.
- EU2. Student is able to identify the hazards occurring at workplaces.
- EU3. Student can make a risk assessment on the selected workstation.
- EU4. Student can describe procedure to be followed in the case of occupational diseases and to analyze accidents at work and specify the requirements for determining the circumstances and causes of accidents.
- EU5. Student is able to describe the basic elements of the safety management system and the rules for its integration with other management systems.

### COURSE CONTENT

<b>Type of teaching – LECTURE</b>	<b>Number of hours</b>
W1. Basic concepts of occupational health and safety. The system of labor protection in Poland.	1
W2. The legal system of labor protection. Basic obligations of the employer with regard to safe and healthy working conditions.	2
W3. Institutional oversight of working conditions.	1
W4. The concept of risk. Factors threats: malicious, nuisance and dangerous.	1
W5. Maximum concentration (MAC) and maximum intensity (NIS). The instantaneous value and concentration caps. Rating physical strain.	2

W6. Physical, chemical and biological hazards.	1
W7. Definition of accidents at work and treated equally with accidents at work.	1
W8. Reporting accidents. Determining the circumstances and causes of accidents at work.	1
W9. Procedure in case of occupational diseases.	1
W10. Legislation on risk assessment. Methods of risk assessment.	2
W11. Organization of occupational risk assessment in the enterprise.	1
W12. Safety management and occupational health system. The integration of management systems.	1
<b>Type of teaching - CLASS</b>	<b>Number of hours</b>
C1. Familiarizing students with the rules governing the passing. Presentation of substantive content and required learning outcomes.	2
C2. Legal protection of work. Requirements for work spaces, machines and work processes.	2
C3. Legal protection of work - case studies (accidents at work).	4
C4. Determining the circumstances and causes of accidents at work.	2
C5. Identification and analysis of hazards.	2
C6. Occupational risk assessment. The method according to PN-N 18 002: 2011, the PHA method.	2
C7. Risk assessment. The "five steps" and Risk Score methods.	2
C8. Risk assessment. JSA method. Graph methods.	2
C9. Risk assessment. Other methods.	2
C10. Safety management system. Identification of the legal requirements of OSH management system.	2
C11. System documentation. Policies, procedures and instructions.	4
C12. OSH management system. Schedule of implementation, assignment of responsibility.	2
C13. Knowledge test.	2

### TEACHING TOOLS

1. Books and monographs.
2. Audiovisual presentation.
3. Standards.

### WAYS OF ASSESSMENT (F – FORMATIVE, P – SUMMATIVE)

- F1. Grade from occupational risk assessment (Exercise 1).  
F2. Grade from safety management system project (exercise 2.)  
F3 Grade for the activity in the classroom.  
P1 Grade from the test.

### STUDENT WORKLOAD

Form of activity		Average number of hours for realization of the activity		
		[h]	ECTS	ECTS
Contact hours with the teacher	Lecture	15	0.6	1.0
Getting acquainted with the indicated literature		10	0.4	
Contact hours with the teacher	Class	30	1.2	1.8
Preparation to class		15	0.6	
Consultation		5	0.2	0.2
<b>TOTAL NUMBER OF HOURS / ECTS POINTS FOR THE COURSE</b>		<b>75</b>	<b>3</b>	

### BASIC AND SUPPLEMENTARY RESOURCE MATERIALS

#### Basic resources

1. Essentials of health and safety at work. Health and Safety Executive (HSE), Crown, 2006.

2. Robotham G. Guidance FOR the beginning OHS professional. 2012.
3. Górka E. Ergonomia. Projektowanie, diagnoza, eksperymenty. Oficyna Wydawnicza Politechniki Warszawskiej, Warszawa 2007.
4. Zawieski W.M. (eds.) Ryzyko zawodowe. Metodyczne podstawy oceny. Wydawnictwo CIOP PIB, Warszawa 2007.
5. Uzarczyk A. Ocena ryzyka zawodowego na stanowiskach narażonych na: czynniki szkodliwe, czynniki uciążliwe, zagrożenia wypadkowe. ODDK Gdańsk, 2006.

#### Supplementary resources

1. Sobocińska A. Bezpieczeństwo i higiena pracy przy projektowaniu, produkcji oraz eksploatacji maszyn budowlanych. [in:] Bezpieczeństwo systemu człowiek - obiekt techniczny.
2. Jarża S., Sobocińska A. Bezpieczeństwo pracy w aspekcie kosztów przedsiębiorstwa. [w:] Zeszyty Naukowe Wyższej Szkoły Bankowej we Wrocławiu, Nr 27, Wrocław, 2011.

#### TEACHERS (NAME, SURNAME, E-MAIL ADDRESS)

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#### MATRIX OF LEARNING OUTCOMES REALISATION

Learning outcome	Reference of given outcome to outcomes defined for whole program (PRK)	Course aims	Course content	Teaching tools	Ways of assessment
EU1	K_W02, K_W05, K_U01, K_U02, K_U03, K_U04, K_U05, K_U11, K K03	C1	W1, W2, W3, C2, C3	1, 2	F3, P1
EU2	K_W01, K_W07, K_W08, K_W09, K_U01, K_U02, K_U05, K_U11, K K03	C2	W4- W6, C5	1, 2, 3	F1, P1
EU3	K_W02, K_W09, K_U01, KU_02, K U05, K U11, K K03	C3	W10, W11, C6-C9	1, 2	F1, P1
EU4	K_W02, K_W03, K_W09, K_U01, K_U02, K_U04, K_U11, K K03	C4	W7-W9, C3, C4	1, 2	F3, P1
EU5	K_W02, K_W03, K_W09, K_U01, K_U02, K_U04, K_U11, K K03	C5	W12, C11, C12	1, 2,3	F2, P1

#### FORM OF ASSESSMENT - DETAILS

	grade 2	grade 3	grade 4	grade 5
EU1	Student is not able to characterize the system of labor protection in Poland ...	the student is able to name the most important elements of the system of labor protection ...	The student is able to list most of the hazards occurring in the work environment and divide them into appropriate groups.	The student can list most of the hazards occurring in the work environment and divide them into appropriate groups and also provide the most important methods of prevention.
EU2	The student can not list hazards occurring in the work environment.	The student can list the most important threats occurring in the work environment.	The student can list most of the hazards occurring in the work environment and divide them into appropriate groups.	The student can list most of the hazards occurring in the work environment and divide them into appropriate groups as well as the most important methods of prophylaxis.
EU3	The student is not able to assess the occupational risk for	The student is able to assess the occupational risk for	The student is able to assess occupational risk for a selected job	The student is able to assess occupational risk for a job and two methods imposed by the

	a chosen job.	a chosen job by any method.	by two methods.	teacher.
<b>EU4</b>	The student can not describe the procedure for dealing with occupational diseases or provide requirements for determining the circumstances and causes of accidents.	The student can describe the procedure for dealing with occupational diseases and provide requirements for determining the circumstances and causes of accidents.	The student can describe the procedure for dealing with occupational diseases and provide requirements for determining the circumstances and causes of accidents and analyzing the causes of accidents.	The student can describe the procedure for dealing with occupational diseases and provide requirements for determining the circumstances and causes of accidents and analyze the causes of accidents and correctly complete the postaccident report.
<b>EU5</b>	The student can not describe the basic elements of the health and safety management system.	The student can describe the basic elements of the OSH management system.	The student can describe the basic elements of the OSH management system, describe the principles of documentation.	The student can describe the basic elements of the OSH management system, describe the principles of documentation preparation and provide its principles integration with other management systems.

#### **ADDITIONAL USEFUL INFORMATION ABOUT THE COURSE**

1. Information where presentation of classes, instruction, subjects of seminars can be found, etc. - presented to students during first classes, if required by the formula classes are sent electronically to the e-mail addresses of individual dean groups.
2. Information about the place of classes - Information can be found on the website of the Faculty of Management.
3. Information about the timing of classes (day of the week / time) - Information can be found on the website of the Faculty of Management.
4. Information about the consultation (time + place) - Information can be found on the website of the Faculty of Management.