

RTU Course "Occupational Safety and Environmental Protection"

22000 Faculty of Engineering Economics and Management

General data

Code	IDA304
Course title	Occupational Safety and Environmental Protection
Course status in the programme	Compulsory/Courses of Limited Choice
Responsible instructor	Valentīna Urbāne
Volume of the course: parts and credits points	1 part, 3.0 credits
Language of instruction	LV
Annotation	The study course provides knowledge of natural characteristics and hazards related to various chemical elements. At the same time the study course gives information on occupational safety in compliance with International Occupational Safety and Health Convention and EU laws. The study course gives knowledge of the structure of chemical elements and hazards related to chemical exposure. Students gain knowledge of the risks of the working environment and their prevention methods. Students are introduced to environmental protection in the EU and Latvia.
Goals and objectives of the course in terms of competences and skills	The goal of the study course is to provide theoretical knowledge and practical skill on protection and safety in environments where hazardous substances and dust are present, environmental risks minimalization and prevention. The objectives of the study course are: 1. To provide comprehensive knowledge and recommendations on the safe use of chemicals in accordance with the requirements of regulatory enactment. 2. To provide knowledge on the environment and its protection, in accordance with regulations of the EU and Latvia.
Structure and tasks of independent studies	Students examine the theoretical material independently, perform their own work, analyse situations, participate in discussions. Identify risks during the usage, storage and transportation of chemical substances.
Recommended literature	Obligātā/Obligatory: 1.Urbāne V., Lavendele S., "Bīstamo vielu pielietojanas drošība" II izdevums RTU, 2009. 2. Vides zinātne. M.Kļaviņa red. LU Akadēmiskais apgāds, 2008. – 599 lpp.. Papildu/Additional: 4. MK noteikumi 325 "Darba aizsardzības prasības saskarsmē ar ķīmiskajām vielām darba vietā" (15.05.2007.). 5.Torlley's health and safety at work .Handbook , 2019; 6. Occupational and environment safety and health /editor: Pedro M , Arezes (and vēl 8 redaktori) SPringa 2019 xvi 805 lpp. 7. European Agency Safety and Health at Work /EASHN/: http://www.osha.eu . 8. Handbook of safety principles. London 2019. 710 p. 9. Safety at work and emergency control, Candella Benedito. Madrid, 2019. 10.Latvijas republikas spēkā esošie likumi, normatīvie akti un standarti darba un vides aizsardzības jomā. 11. Interneta materiāli: http://osha.lv . 12. P.Tint, V.Urbane, J.Ievins. Prevention The impact of Chemicals on the Health of Workers in Fibreglass Industry. Estonian University of Life Sciences, 2017. Vol 15. p. 2195-2206. 13. V. Urbane, P.Tint, J.Ievins. The Co-influence of Noise and Carbon Dioxide on Humans in the Work and Living Environment. Estonian University of Lifr scieebces.2020. Vol. 18 p.1056-1067. 14. T.Tambovceva, V.Urbane, J.Ievins.Innovation in Construction Waste Management: Case of Latvia. 2020. Sumy State University , Ukraine . Marketing and management of innovations . Vol.3, p. 234-248.2020.
Course prerequisites	Physics,mathematics, chemistry.

Course contents

Content	Full- and part-time intramural studies		Part time extramural studies	
	Contact Hours	Indep. work	Contact Hours	Indep. work
Principles of the organisation of labour protection in woodworking and textile companies.	1	0	1	0
Basic safety principles for machines and equipment.	1	1	1	1
Basic principles for workspace planning.	3	2	2	3
Ergonomics in the woodworking and textile company.	1	2	1	2
Vibration prevention methodologies at workplaces.	2	1	1	2
Noise assessment methodologies at workplaces.	1	2	1	2
Work equipment and basic principles for its supervision in the company.	2	2	1	3
Displacement of weights and mechanisation solutions.	2	3	2	3
Assessment of job risks at the workplace	4	4	2	6
Protection of hazardous and harmful substances in the working environment.	5	5	3	7
Classification of dangerous substances.	2	3	1	4
Principles, development and management of the environmental management system.	4	4	2	6

Safe working techniques when working in the environment of dangerous substances.	5	5	3	7
Waste management of hazardous substances.	5	5	3	7
Environment protection in Latvia and EU.	2	1	1	2
Total:	40	40	25	55

Learning outcomes and assessment

Learning outcomes	Assessment methods
Knows factors that impact the environment. Can identify those factors across different companies, organizations, and institutions.	Work in groups.
Knows what companies should calculate natural resources tax and is capable of calculating the amount of this tax.	Individual work on analysing the situation of different companies and practical calculation of natural resources tax.
Understands what an environmental program is and the ability to create it independently.	Individual work leading to the establishment of an environmental programme.
Is able to assess the risks that are present in working in an environment that is exposed to hazardous substances.	Work in groups.
Is able to apply the knowledge acquired within the study course in everyday work.	Exam.

Evaluation criteria of study results

Criterion	%
Executed group work	25
Executed individual work	35
Passed exam	40
Total:	100

Study subject structure

Part	CP	Hours			Tests		
		Lectures	Practical	Lab.	Test	Exam	Work
1.	3.0	1.5	0.0	0.5		*	