

UNIVERSITY OF ZAGREB FACULTY OF METALLURGY

UNDERGRADUATE UNIVERSITY **STUDY PROGRAM** "OCCUPATIONAL SAFETY, HEALTH AND ENVIRONMENT"



SVEUČILIŠTE U ZAGREBU METALURŠKI FAKULTET

UNIVERSITY OF ZAGREB FACULTY OF METALLURGY

No.	Designation	LEARNING OUTCOMES AT THE PROGRAM LEVEL
1	IU1	Define the impact of dangers, hazards and efforts on human health and /
		or the environment.
2	IU2	Identify and analyze dangers, hazards and efforts in the workplace.
3	IU3	Use applicable regulations and standards relevant to safety and health at
		work.
4	IU4	Recognize the relationship of health and environmental risks.
5	IU5	Apply methods of health protection and measures to increase safety at work.
6	IU6	Recognize the importance of human, socioeconomic and environmental factors on workers' health and working ability.
7	IU7	Apply prevention programs to reduce the impact of danger, harmfulness and efforts in the workplace.
8	IU8	Analyse the present situation, identify problems, formulate and recommend an optimal technological solution.
9	IU9	Collect and analyze data and create risk assessment in the workplace.
10	IU10	Apply teamwork-oriented, ethical principles and encourage the development of communication and social skills.
11	IU11	Manage safety at work systems in organizations and the local community.
12	IU12	Apply logical conclusion and precision in data processing.
13	IU13	Use acquired theoretical knowledge in engineering practice.
14	IU14	Predict methods and determine samples for the determination of
		contamination of environmental constituents.
15	IU15	Use applicable regulations and standards relevant to the protection of
1.5		the working environment.
16	IU16	Predict solutions for efficient waste management.
17	IU17	Apply the basic principles of working performance assessment.
18	1018	Use computer applications for prevent pollution of the working
10	U10	A pply acquired IT knowledge in anginacting practice
19		Apply acquired 11 knowledge in engineering practice.
20	1020	spreading fire on buildings and use the applicable regulations and
		standards relevant to fire protection.

		MATRIX OF LEARNING OUTCOMES AT THE LEVEL OF THE																			
FROM ACADEMIC YEAR 2019/2020			UNDERGRADUATE UNIVERSITY STUDY PROGRAM																		
			OCCUPATIONAL SAFETY, HEALTH AND ENVIRONMENT																		
			AND AT THE LEVEL OF THE COURSES																		
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No.	COURSES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	MATHEMATICS 1										х		х	х							
2	PHYSICS												х	х							
3	CHEMISTRY												х	х							
4	INTRODUCTION TO SAFETY	х		х					х					х						х	
5	INTRODUCTION TO ECOLOGY	х									х					х					
6	WORK PSYCHOLOGY		х			х	х	х			х							х			
7	ENGLISH LANGUAGE 1										х			х							
8	MATHEMATICS 2										х		х	х							
9	FUNDAMENTALS OF ELECTRICAL ENGINEERING								х				х	х							
10	ENGINEERING DRAWING AND COMPUTER GRAPHICS												х	х						х	
11	THE BASICS OF LAW AND OCCUPATIONAL SAFETY LEGISLATION			x									x			x				x	
12	TOXICOLOGY	х			х				х						х						
13	CHEMICAL AND BIOLOGICAL HAZARDS	х	х		х	х	х														
14	ENGLISH LANGUAGE 2										х			х							
15	COMPUTER ASSISTED DATA PROCESSING										х		х						х	х	
16	ENVIRONMENT AND WORKPLACE PROTECTION TECHNIQUES	x				x	x							x							
17	SAFETY MANAGEMENT SYSTEMS		х	х					х			х	х						х	х	
18	HAZARDS AND RISKS IN WORK ENVIRONMENT		х				х														
19	HEALTH AND SAFETY AT WORK PRINCIPLES	х	х	х		х		х		х								х			
20	TESTING AND CERTIFICATION			х					х			х	х								
21	MATERIALS SCIENCE	х	х		х				х												
22	PHYSICAL DAMAGES	х	х	х	х	х	х														
23	MACHINES AND DEVICES WITH INCREASED DANGERS	х	х					х	х	х											

24	ERGONOMICS AND SAFETY	х	х	х		х			х				х								
25	ENERGY SYSTEMS		х			х		х	х	х											
26	FUNDAMENTALS OF COMBUSTION AND EXTINCTION																				
20	PROCESSES		х	х					х	х				х		х					
27																					
27	PERSONAL PROTECTIVE EQUIPMENT AND RESCUE EQUIPMENT		х	х		х							х								<u> </u>
28	HAZARDOUS SUBSTANCES IN THE ENVIRONMENT	х		х	х		х					x			х						
29	POLLUTION AND PROTECTION OF SOIL	х			х			x	х		x				х						
30	AIR POLLUTION AND PROTECTION	х			х		х	х							х	х	х				
31	WATER POLLUTION AND PROTECTION	х	х		х										х	х	x				
32	INTRODUCTION TO ENTREPRENEURSHIP										х									х	
33	EMERGENCY PLANNING AND RESPONSE	х		х				х				х									
34	FIRE SAFETY OF BUILDINGS										х			х							х
35	PROFESSIONAL DISEASES AND HUMAN HEALTH	х	х	х		х	х	x													
36	SUSTAINABLE WASTE MANAGEMENT				х				х			х	х		х	х	х				
37	TECHNICAL AND BUSINESS SAFETY			х		х				х	х	x									
38	BUSINESS COMMUNICATION AND ANDRAGOGY						х				х			х							
39	RISK ASSESSMENT		х	х					х	х											
40	STUDENT PRACTICE		х	х					х		х		х	х						х	
11	THE BEST AVAILABLE TECHNIQUES IN ENVIRONMENT																				
41	PROTECTION OF INDUSTRIAL AND OTHER INSTALLATIONS								х					х		х					
42	RADIATION PROTECTION	х				х		x						х							
43	PUBLIC HEALTH	х					х				х	х						х			
44	HEALTH AND SAFETY IN FOOD PRODUCTION			х			х				х	х									
45	SAFETY IN CONSTRUCTION	х	х	х		х		х	х												
46	ACTIVE MEASURES FORM FIRE PROTECTION										х			х							х
47	SUSTAINABILITY OF FOUNDRY PROCESSES			х	х				х					х							
48	LOW – EMISSION COMBUSTION					х		x	х					х							
49	BACHELOR THESIS		х	х					х		х			х						х	
	TOTAL	19	18	19	10	13	11	11	19	6	17	8	14	20	6	7	3	3	2	8	2