Study program: Occupational Safety Engineering

Type and level of studies: Undergraduate Academic Studies

Course unit: Hazards and Injuries at the Workplace and in the Work Environment

Teacher in charge: Dr Slobodan Morača, Dr Boris Agarski, Dr Goran Bošković

Language of instruction: English

ECTS: 7

Prerequisites: None

Semester: Summer semester

Course unit objective:

Acquiring knowledge, competencies, and academic skills for identifying and analyzing hazards and injuries at the workplace. Development of creative abilities and mastering specific practical skills in the domain of recognition and analysis of hazards and hazards in the workplace and in the work environment.

Learning outcomes of the course unit

Ability to solve specific problems in the field of hazards and injuries at the workplace. Mastering the methods, procedures, and processes of applying acquired knowledge in the field of hazards and injuries in the workplace. Develop skills and proficiency to identify risks and injuries at the workplace. Ability to critically and self-critical thinking and approach in addressing hazards and hazards in the workplace.

Course unit contents

Types and characteristics of working processes in the production and service organizations; Human resources as holders of working processes; Identification of basic flows in the organization; Workplace, working environment and working conditions; Recognition and identification of risks and hazards at work and in the working environment; Types and characteristics of risks and hazards in the working processes; Mechanicals risks occurring using the working equipment; Risks occurring due to characteristics of the workplace; Risks occurring due to the use of electricity; Hazards occurring in the working process; Hazards arising from psychological and psycho physiological efforts; Hazards related to the working organization; Hazards from other persons; Working with animals; Working in special conditions.

Literature

Satapathy S., Realyvásquez Vargas A., Mishra M., Occupational Health Safety Factors and Their Impact on the Mental Health of Workers, Springer (Berlin), 2023.

Mark Friend M., Fundamentals of Occupational Safety and Health, Bernan Press (USA), 2023.

Erickson A. P., Practical Guide to Occupational Health and Safety, Academic Press - Elsevier Science (USA), 2012.

Neudörfer A., Konstruieren sicherheitsgerechter Produkte, Springer (Berlin), 2002.

Number of active teaching hours				**Other classes**
Lectures:	Practice:	Other forms of classes:	Independent work:	
2	1	1	0	**0**

Teaching methods

Teaching is done with modern didactic means and methods, interactive in the form of lectures, auditory, and laboratory exercises. In addition to lectures and exercises, consultations are also held regularly. The lectures show the theoretical part of the material, accompanied by characteristic examples for easier understanding of the subject matter. Laboratory exercises are practically applied to the acquired knowledge on the available laboratory equipment.

Examination methods (maximum 100 points)

Exam prerequisites	**No. of points:**	**Final exam**	**No. of points:**
Student's activity during lectures	5	Written part of the exam - combined tasks and theory	70
Student's activity during exercises	5		
Seminar work	20		

Grading system

Grade	**No. of points**	**Description**

10	**91-100**	Excellent
9	**81-90**	Exceptionally good
8	**71-80**	Very good
7	**61-70**	Good
6	**51-60**	Passing
5	**Less than 51**	Failing