

## DESCRIPTION OF THE COURSE

Name of the course: <b>Safety engineering</b>	Code: BIE52	Semester: 6
Type of teaching: Lectures and laboratory work	Lessons per week: L – 1.5 hours; LW – 1 hour	Number of credits: 3

**COURSE STATUS IN THE CURRICULUM:** Compulsory for the students of specialty Industrial Engineering B.Eng. program of the English Language Faculty of Engineering.

**AIMS AND OBJECTIVES OF THE COURSE:** The purpose of the “Technical safety” educational course is to provide students with engineering knowledge for the basic requirements, methods and means for contemporary technological processes and fundamentals of the work safety in industry.

**DESCRIPTION OF THE COURSE:** In the course matters related to technical safety in industry are considered: the essence of electrical trauma, the mechanical causes for breakdowns (failures) of electrical insulation, faults in electrical equipment, protective and neutral earthing, over-load protection, fire protection and explosion protection, deleterious attack (action) protection, staff qualification.

**PREREQUISITES:** The course “Technical Safety” uses knowledge obtained from the Electrical engineering courses, Electronics, Industrial practice, Electrical measurements and instrumentation, Industrial manufacturing systems, Management of human resources.

**TEACHING METHODS:** The lectures are conducted with the help of modern teaching technical means – slides and films. The labs are conducted in accordance with the lab manuals. The individual reports, prepared by the students, are checked by the supervisor.

**METHOD OF ASSESSMENT:** Continues assessment (90%) plus laboratory work assessment (10%).

**INSTRUCTIONAL LANGUAGE:** English.

### **BIBLIOGRAPHY:**

1. W. Fordham Cooper, Electrical safety Engineering, Butterword-Heinemann, 1993, 1999;
2. Switching, Protection and Distribution in Low-Voltage Networks, SIEMENS, Berlin, 1994;
3. Davies T., Protection of Industrial Power Systems, Butterword-Heinemann, 1998;
4. Cadik J., Electrical Safety Handbook, McGraw Hill Text, 1992.