



SUBJECT DATASHEET

Semester:	2010/11/1
Subject:	Safety Technique and Risk Assessment II.
Code:	VEMLKVM422B
Responsible department:	Department of Environmental Engineering
Responsible department code:	MKKV
Responsible lecturer:	Dr. Tibor Kun Szabó

Educational objectives:

In-depth knowledge in the practical solutions of risk analysis and control, introducing risk management.

Detailed content of the subject:

1. Calculating statistical data in order to handle work-related accidents and ill health. 2. Treating the intensity distribution of answers to impacts assuming Gauss-distribution. 3. Probit method to linearize impact-answer equations (fires, explosions, physical impacts, toxication). 4. Judging flammability, explosivity and toxicity of compounds based on their components. 5. Calculation of bearable noises. 6. Source models of hazardous and polluting materials. 7. Transport models of hazardous and polluting materials. 8. Classification of processes based on their hazardousness, defining Dow Fire and Explosion Index. 9. Hazard and operability analysis. 10. Fault tree analysis. 11. Quantitative risk assessment.

Requirements:

Attending the lectures, preparing an essay, passing the written examination. Examination in the end-of-semester term. The grade can be also attained by writing a successful essay (50%) and written examination (50%).

Required and suggested references:

Kuhlmann, A.: Einführung in die Sicherheitswissenschaft. Verlag TÜV Rheinland GmbH. Köln, 1995. Haubert G.: A munkahelyi kockázatértékelés és kezelés gyakorlati kézikönyve. MKK. Budapest, 2003. MSZ 28001 és 28002: Munkahelyi egészségvédelmi és biztonsági irányítási rendszerek. MSZT, Budapest, 2003. Crowl, D. A., Louvar, J. F.: Chemical Process Safety: Fundamentals with Application. Prentice Hall, Englewood Cliffs (N.J.), 1990. Varga Z.: Veszélyforrás-elemzés a vegyiparban. Veszprémi Egyetemi Kiadó, Veszprém, 1998. OMIKK: Védekezés ipari katasztrófák ellen. Gyakorlati kézikönyv. OMIKK, Budapest, 1990.