



## SUBJECT DATASHEET

<b>Semester:</b>	2009/10/1
<b>Subject:</b>	Safety Technique and Risk Assessment I.
<b>Code:</b>	VEMLKVM222B
<b>Responsible department:</b>	Department of Environmental Engineering
<b>Responsible department code:</b>	MKKV
<b>Responsible lecturer:</b>	Dr. Tibor Kun Szabó

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### Educational objectives:

Introduction of the basics of safety technique and risk assessment. Identifying and evaluating hazards and risks, studying the methods concerning.

### Detailed content of the subject:

1. Notions of safety science: harm, probability and notions deduced from these: hazard, endangerment and safety, accident-like damage, risk. 2. The control mechanisms of safety, system approach to safety management, computer simulation methods of controls in safety science. 3. The tasks and goals of safety analysis, mathematical background, qualitative and quantitative risk assessment methods. 4. Risks of devices (technologies), environmental risks, man as the source of risks and subject of protection. 5. Legal regulation of risk management. 6. The elements of the risk assessment process: identifying hazards and defining who are endangered; qualitative and quantitative evaluation of risks; provision of risk mitigation, review on efficiency, regular supervising, documentation. 7. Social aspects of safety science. 8. Software in the field of safety science and risk management.

### 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. Varga Z.: Veszélyforrás-elemzés a vegyiparban. Veszprémi Egyetemi Kiadó, Veszprém, 1998. Kun-Szabó Tibor: Munkavédelem. 2. jav. kiadás. Veszprémi Egyetemi Kiadó, Veszprém, 2004. Nagy T.: Biztonság és biztonság tudomány. Kézirat. Magánkiadás. Kővágóörs, 2001. Nagy T.: Veszteségforrás-kutatás és a biztonság. Kézirat. Magánkiadás. Kővágóörs, 2004.