



## SUBJECT DATASHEET

<b>Semester:</b>	2010/11/1
<b>Subject:</b>	Decontamination Techniques in Nuclear Power Plants
<b>Code:</b>	VEMLRKM412A
<b>Responsible department:</b>	Institute of Radiochemistry and Radioecology
<b>Responsible department code:</b>	MKRK
<b>Responsible lecturer:</b>	dr. Zoltán Németh

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### Educational objectives:

To give knowledge of phenomena of contamination-decontamination at NPPs

### Detailed content of the subject:

Sources of radioactive contamination. Radioactive contamination, decontamination. Sources of radioactive contamination at NPP. Measuring the contamination, decontamination. Investigation techniques of contamination, decontamination. Decontamination technologies: physical methods. Decontamination technologies: chemical and electrochemical methods. Liquidation of NPPs: I. Dismounting. Liquidation of NPPs: II. Decommissioning. Decontamination after a nuclear accident. Individual practices.

### Requirements:

In the course of an oral examination two overall questions on the issues of the lectures are provided to each student. A short period of time (maximum 30 minutes) is supplied to the students to prepare some drafts of their answers. The exam is qualified in the following ways: - If draft and the answers provided by the student are clear, correct and explains every important relationship on the subject, the record is marked as excellent one (5). - If the student is able to make an overall analysis on the issue solely by the directions of the teacher, he (she) is assessed with a good record (4). - If the student is not able to give clear description on the main relationships of the subject but he (she) can define the fundamental conceptions, his grade is a fair (medium) (3). - If the student can define the fundamental conceptions of the issue by the directions of the teacher, he gets a pass (2). - Without having studied the fundamental conceptions the student is qualified with an unsatisfactory (fail) record (1).

### Required and suggested references:

Nagy L. György: Radiokémia és izotóptechnika, Tankönyvkiadó, Budapest, 1998. Atomerőművek vízüzeme, Műszaki Könyvkiadó, Budapest, 1981. G. Choppin, J. Rydberg, J.O. Liljenzin: Radiochemistry and Nuclear Chemistry, Butterworth-Heinemann Ltd, Oxford, 1995.