



## COURSE DATASHEET

<b>Semester:</b>	2014/15/2
<b>Course:</b>	Special bioreactors laboratory practice
<b>Code:</b>	VEMKBMM434B
<b>Responsible department:</b>	Research Institute on Bioengineering, Membrane Technology and Energetics
<b>Department code:</b>	MKBME
<b>Responsible instructor:</b>	dr. Béla Nándor Nemestóthy

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### Course objectives:

To present the students special bioreactors in practice, to become familiar with some techniques, methods in designing, set-up and operation of bioreactors.

### Course content:

Introduction - safety instructions.

Conventional bioreactor with soluble enzyme.

Enzymatic packed bed reactors.

Micro-bioreactors.

Test

Non conventional agitation methods.

Fluid-bed reactors.

Membrane bioreactors.

Integrated bioreactors.

Test

### Requirements, evaluation and grading:

Evaluation of the laboratory practice: the final mark is the weighted mean value of the marks received for the practical tasks, the papers written each week and the final paper written at the end of the semester. It is strictly required that the paper written at the end of the semester and 50% of the practical tasks and the weekly papers are at least grade 2.

### Required and recommended readings:

Wolfgang Ehrfeld Volker Hessel, Holger Löwe: Microreactors: New Technology for Modern Chemistry



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