



## COURSE DATASHEET

<b>Semester:</b>	2016/17/1
<b>Course:</b>	Up-to-date biotechnology processes laboratory practice
<b>Code:</b>	VEMKBMM434K
<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 introduce students into the up-to-date bioengineering processes in the practice, to obtain routine in some practical methods, techniques.

### Course content:

1. Introduction - safety instructions
- 2-3. Enzyme kinetics measurements
- 4-5. Experiment in immobilized enzyme reactor
- 6-7. Novel processes in sterile microbial technologies
8. Consultation, assessment
- 9-10. Experiment with immobilized cells
- 11-12. Novel processes in downstream
13. Controlling techniques
14. Consultation, assesment

### Requirements, evaluation and grading:

The accomplishment of the all measurements. Preparing a related report and a preceding test.

### Required and recommended readings:

Buchholz, K., Kasche, V., Bornscheuer, U. T.: Biocatalysts and enzyme technology, Wiley, Weinheim, 2005  
Industrial enzymology, Ed. by Godfrey. T., West, T., MacMillan Press, London, 1996