



COURSE DATASHEET

Semester:	2013/14/1
Course:	Up-to-date biotechnology processes
Code:	VEMKBMM446K
Responsible department:	Research Institute on Bioengineering, Membrane Technology and Energetics
Department code:	MKBME
Responsible instructor:	dr. Katalin Bélafiné Bakó

Course objectives:

To introduce students into the up-to-date bioengineering processes, to describe their characterization.

Course content:

- 1-2. Introduction - the fundamentals of biotechnology and bioengineering, enzymes and microbes
- 3-4. Enzyme kinetics - complex systems
5. Ribozymes
- 6-7. Novel processes in sterile microbial technologies
- 8-9. New trends in bioreactor development
10. Extremophiles and their applications
- 11-12. Novel processes in downstream
13. Controlling techniques in the 21st century
14. Consultation, exam

Requirements, evaluation and grading:

Written and / or oral exam in the end of the course.

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