



COURSE DATASHEET

Semester:	2014/15/2
Course:	Bioreactors laboratory practice
Code:	VEMKMUB332B
Responsible department:	Research Institute on Bioengineering, Membrane Technology and Energetics
Department code:	MKBME
Responsible instructor:	dr. Béla Nándor Nemestóthy

Course objectives:

The aim of the measurements is to study different bioreactors: periodic fermentors, air-lift reactors, membrane reactors and immobilized cell reactors in groups of 3-4.

Course content:

1. Shaking lombic experiments in incubators
2. Stirring bioreactors with double wall
3. Packed coloum reactors (fluid bed, loop construction)
4. Membrane bioreactors

Requirements, evaluation and grading:

Terms of signature:

Accomplishment of the allocated measurements.

One substitution is allowed.

Average of the final test and the lab tests.

It's can be improved on time.

Required and recommended readings:

Schügerl K.: Bioreaction Engineering vol. II. John Wiley and Sons, 1987.

Douglas S. Clark: Biochemical Engineering, Marcel Dekker Inc. 1997.