



COURSE DATASHEET

Semester:	2015/16/2
Course:	Membrane processes
Code:	VEMKBMT344M
Responsible department:	Research Institute on Bioengineering, Membrane Technology and Energetics
Department code:	MKBME
Responsible instructor:	dr. Katalin Bélafiné Bakó

Course objectives:

To introduce the students into the fundamentals of membrane separation, the operation of various membrane separation techniques and their applications.

Course content:

1. Introduction, classification, driving forces
2. Pressure driven membrane processes
3. Ultrafiltration
4. Microfiltration, nanofiltration, reversed osmosis
5. gas separation
6. Pervaporation
7. Dialysis, haemodialysis
8. Electrodialysis
9. Liquid membranes
10. Integrated systems
11. integration in chemical processes
12. Integration in bioconversions
13. Case studies

Requirements, evaluation and grading:

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

Required and recommended readings: