



SUBJECT DATASHEET

Semester:	2009/10/2
Subject:	Membrane processes
Code:	VEMKBMB412M
Responsible department:	Research Institute on Bioengineering, Membrane Technology and Energetics
Responsible department code:	MKBM
Responsible lecturer:	dr. Katalin Bélafiné Bakó

Educational objectives:

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

Detailed content of the subject:

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:

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

Required and suggested references:

Scott, K.: Handbook of Industrial Membranes, Elsevier, 1995.
Strathmann, H., L. Giorno, E. Drioli: An Introduction to Membrane Science and Technology, Ufficio Pubblicazioni e Informazioni Scientifiche, Italy, Rome, 2006



UNIVERSITY OF PANNONIA

SUBJECT DATASHEET

Semester:	2009/10/2
Subject:	Membrane processes
Code:	VEMKBMB412M
Responsible department:	Research Institute on Bioengineering, Membrane Technology and Energetics
Responsible department code:	MKBM
Responsible lecturer:	dr. Katalin Bélafiné Bakó

Required and suggested references:

Bélafiné Bakó Katalin: Membrános műveletek, Veszprémi Egyetemi Kiadó 2002.