



## COURSE DATASHEET

<b>Semester:</b>	2012/13/2
<b>Course:</b>	Unit operations B
<b>Code:</b>	VEMKMUB212V
<b>Responsible department:</b>	Department of Chemical Engineering Science
<b>Department code:</b>	MKMU
<b>Responsible instructor:</b>	dr. László Hanák

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### Course objectives:

Provides basic knowledge for process engineering.

### Course content:

1. Definition of degree of liberty, degree of liberty of unit operations 2. Equilibrium in multiphase mixtures 3. Hydrodynamics in unit operations 4. Dust and droplet removal 5. Particle size enhancement and classification 6. Evaporation 7. Exam 8. Cooling 9. Distillation of mixtures 10. Design of a distillation column 11. Countercurrent and cross flow extraction 12. Makrokinetics, catalytic reactors 13. Bioreactors 14. Process control 15. Exam

### Requirements, evaluation and grading:

The average of the two exams must be at least 2,0 this note gives 30 % of the final note.

### Required and recommended readings:

Fonyó-Fábri: Vegyipari műveleti alapismeretek, Coulson-Richardson's: Chemical Engineering I-III. különböző tanszéki jegyzetek