UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2012/13/1
Course:	Particle Technology/Process Engineering, Part.I. (Fundamentals)
Code:	VEMKGEB543E
Responsible department:	Department of Mechanical Engineering
Department code:	MKGE
Responsible instructor:	Dr. Sándor Verdes

Course objectives:

The topic is devided into 3 parts: Process Engineering/Particle Technolgy, Part I.: Basics. Process Engineering/Particle Technolgy, Part II.: Basic machines. Process Engineering/Particle Technolgy, Part III.: Applications. To make known machines and technologies used in different fields and where the common/joining topic is the particle. The first part concern the introduction and basic things.

Course content:

Introduction, fields, illustration. Theory of size-changing processes. Properties, characterisation of raw materials, products. Sampling. Characterisation, testings. Distributions, mathematical description. Theory of size-changing processes. Basics of classification, separation. Measurements, characterisation. Negative phenomena. Getting raw materials. Materials handling, storage. Mixing, homogenisation. Overview of machines in size-changing processes. Technological characterisation, connections.

Requirements, evaluation and grading:

2 test papers and 1homework-study

Required and recommended readings:

Beke Béla: Aprításelmélet, Akadémiai Kiadó, Budapest,. 1963. Juhász, A. Z. – Opoczky, L.: Mechanical Activation of Minerals by Grinding: Pulverizing and Morphology of Particles. Akadémiai Kiadó – Ellis Horwood Ltd. Publishers. Budapest – Chichester, 1990. Fábry Gy.: Vegyipari gépészek kézikönyve, Műszaki Kiadó, Budapest, 1987. Fejes – Tarján: Vegyipari gépek és műveletek, Tankönyvkiadó, Budapest, 1979.