



COURSE DATASHEET

Semester:	2012/13/2
Course:	Physical Materials Treatment and Machines for Silicate Industry II.
Code:	VEMKGEB244L
Responsible department:	Department of Mechanical Engineering
Department code:	MKGE
Responsible instructor:	Dr. Sándor Verdes

Course objectives:

Introducing processes applied in silicate industry and connected with them and their basic machines. The role and connection of equipments.

Course content:

Introduction. Terms. Tests. Sampling, distributions, mathematical descriptions. Basics of size-reduction and size-enlargement. Basics of materials handling. Basics of firing. Crushing and comminution machines. Milling, mills. Screens, classifiers. Separators, dust precipitators. Storage, silos, bunkers. Mixing, homogenisation. Packaging. Automation. Process control. Size enlarging machines. Granulation. Machines for shaping and forming. Dryers. Furnaces. Treatment of raw materials. Sand, gravel industry. Brick. Cement production. Concrete industry, concrete blocks. Ceramics. Glass production. Fibre materials. Environmental protection and silicate industry. Waste treatment.

Requirements, evaluation and grading:

2 test papers and 1 homework-study

Required and recommended readings:

Talabér J.: Szilikátipari kézikönyv, Műszaki Kiadó, Budapest, 1982. Fábry Gy.: Vegyipari gépészek kézikönyve, Műszaki Kiadó, Budapest, 1987. Fejes – Tarján: Vegyipari gépek és műveletek, Tankönyvkiadó, Budapest, 1979. Péter Gy.: Kerámiaipari gépek, Műszaki Kiadó, Budapest, 1974.