UNIVERSITY OF PANNONIA

COURSE DATASHEET

Semester:	2016/17/1
Course:	Physical Materials Treatment and Machines for Silicate Industry III.
Code:	VEMKGEB475F
Responsible department:	Institute of Mechanical Engineering
Department code:	MKGEI
Responsible instructor:	Dr. Sándor Verdes

Course objectives:

To make known working of machines used in silicate industry and in related areas. Calculation of main geometrical and running parameters.

Course content:

Preparation, extraction of raw materials for silicate industry, main machines.
Brick and tile production machines. Shape-forming machines (screw-presses, vacuum-presses.)
Problems of material pressing, their basics.
Machines of fine ceramics production.
Shape-forming machines in fine ceramic industry.
Technology and machines in semi-dry production.
Wet and dry process. Theory of dry pressing.
Machines of moulding jet- moulding. Surface treatment machines in ceramic industry.
Equipments of glass industry.
Preparatory machines of cement industry.
Equipments in cement production and handling.
Concrete technology. Blocks.
Fibreous materials production (glass-, rock-wool).
Silicate industry and environment protection. Waste-materials.
Automation, process-control in silicate industry.

Requirements, evaluation and grading:

Evaluation of the laboratory practice and 2 tests.

Required and recommended readings:

Talabér J.: Szilikátipari kézikönyv, Műszaki Kiadó, Budapest, 1982.
Fábry Gy.: Vegyipari gépészek kézikönyve, Műszaki Kiadó, Budapest, 1987.

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Required and recommended readings:

Fejes – Tarján: Vegyipari gépek és műveletek, Tankönyvkiadó, Budapest, 1979.
Péter Gy.: Kerámiaipari gépek, Műszaki Kiadó, Budapest, 1974.