



## COURSE DATASHEET

<b>Semester:</b>	2016/17/1
<b>Course:</b>	Preparation and qualification of silicate based products
<b>Code:</b>	VEMKSISV32B
<b>Responsible department:</b>	Institute of Materials Engineering
<b>Department code:</b>	MKSI
<b>Responsible instructor:</b>	dr. Margit Eniszné Bódogh

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### Course objectives:

Manufacturing of different silicate products in laboratory and qualification their characteristic properties

### Course content:

Investigation of phase composition of ceramic bodies Particle size distribution analyses of ceramic bodies and glazes Preparing of plastic bodies, investigation of plasticity and drying sensitivity Shaping of plastic bodies by jiggering Preparing of casting slips, determination of the optimum electrolyte content Shaping of ceramics by casting Measuring of thermal expansion of ceramic bodies and glazes Investigation of porosity, bulk density and firing shrinkage of fired ceramic bodies Glazing and decorating of ceramic bodies Color measuring of glazed ceramics Grinding and etching of glazed ceramic bodies for microscopic investigations Investigation of morphology of fired ceramic bodies by electron microscope Investigation of body/glaze interface by optical microscope Investigation of chemical resistivity of enamels

### Requirements, evaluation and grading:

Compulsory attendance – making reports of each experiment, passing final test with a score of 2 or above

### Required and recommended readings:

Tamás F.: Szilikátipari laboratóriumi vizsgálatok. Műszaki Könyvkiadó, Budapest, 1970 Somodi Zs., Pálffi a., Kámori L.: Finomkerámiaipari technológia. Műszaki Könyvkiadó, Budapest, 1984