



## COURSE DATASHEET

<b>Semester:</b>	2014/15/1
<b>Course:</b>	Flow and Heat Engineering Machines
<b>Code:</b>	VEMKGEB243H
<b>Responsible department:</b>	Institute of Mechanical Engineering
<b>Department code:</b>	MKGEI
<b>Responsible instructor:</b>	Dr. Sándor Verdes

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### Course objectives:

To give the students a good overview about the most important flow and heat engineering machines.

### Course content:

Fuels. Firing equipments (stokers). Furnaces. Efficiency of furnaces. Steam turbines. Gasturbines. Jet engines. Internal combustion engines.. Test. Introduction. Characterization of the fluid machinery performance. Energy conversation in the impellerchannel. Dimensionless coefficients and similarity laws in the fluid machinery. Kavitation. Selection of centrifugal pumps their types and their parts. Different types of plunger pumps. Axial and radial fans and compressors. Water turbines. Test.

### Requirements, evaluation and grading:

Taking part in lectures and seminars, successful tests

### Required and recommended readings:

Bálint András: Műszaki áramlástan Varga József: Hidraulikus és pneumatikus gépek. Kézikönyv. Fűzy Olivér: Áramlástechnikai gépek és rendszerek. Bohl, Willi: Strömungsmaschinen I.