



## COURSE DATASHEET

<b>Semester:</b>	2016/17/1
<b>Course:</b>	Material handling equipments and metal structures II.
<b>Code:</b>	VEMKGEB143B
<b>Responsible department:</b>	Institute of Mechanical Engineering
<b>Department code:</b>	MKGEI
<b>Responsible instructor:</b>	dr. Imre Timár

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### Course objectives:

Acquire of the basic knowledge sizing to the metal structures and welded structures.

### Course content:

Materials of metal structures and welded constructions. Fundamentals of thermoelasticity. Thermal stresses and strains. Calculation and measuring of welding stresses and strains. Examples. Strength calculation of welded seams by static loading. Strength calculation of welded seams by static loading. Examples. Design of belt bridges. Design of belt bridges. Test paper. Strength calculation of welded seams by dynamic loading. Buckling of plates. Examples. Design of compressed beams and section beams. Examples. Design of compressed beams and section beams. Examples. Thick-walled tubes. Test paper. Thick-walled tubes.

### Requirements, evaluation and grading:

Minimum pass mark from papers (30 %) and prepare one individual project

### Required and recommended readings:

Farkas J.: Fémszerkezetek. Tankönyvkiadó, Budapest, 1983.; Halász O.-Platthy P.: Acélszerkezetek. Tankönyvkiadó, Budapest, 1989.