

## Tárgytematika / Course Description

### Internal Combustion Engines II.

AJNM\_BMTA020

**Tárgyfelelős neve /**

**Teacher's name:** dr. Tóth-Nagy Csaba

**Félév / Semester:** 2017/18/1

**Beszámolási forma /**

**Assesment:** Vizsga

**Tárgy heti óraszám /**

**Teaching hours(week):** 2/0/2

**Tárgy féléves óraszám /**

**Teaching hours(sem.):** 0/0/0

---

### OKTATÁS CÉLJA / AIM OF THE COURSE

Students will analyze the function and loading of the engine components, their materials and manufacturing processes. Based on that analysis students will examine ICE architectures and design variations.

---

### TANTÁRGY TARTALMA / DESCRIPTION

- 1.week: Engine block function and loading
- 2.week: Engine block architecture and design
- 3.week: Engine block materials and manufacturing processes
- 4.week: Cylinder head function and loading
- 5.week: Cylinder head architecture and design
- 6.week: Cylinder head materials and manufacturing processes
- 7.week: Slider crank mechanism function and loading
- 8.week: Slider crank mechanism ballancing
- 9.week: Slider crank mechanism architecture and design
- 10.week: Slider crank mechanism materials and manufacturing processes
- 11.week: Bearing systems in ICEs
- 12.week: Lubrication in ICEs
- 13.week: Thermomanagement of ICEs
- 14.week: Summary

---

### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

exam, semester project, labor

---

### KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

**Kötelező irodalom:**

John B. Heywood: Internal Combustion Engine Fundamentals, ISBN 0-07-028637-X, McGraw-Hill

## **Ajánlott irodalom:**

Everything on the internet

---