

## Tárgytematika / Course Description

### Noise and Vibration Protection

NGM\_KE101\_1

Tárgyfelelős neve /

Teacher's name: dr. Gyulai István

Félév / Semester: 2016/17/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 2/1/0

Tárgy féléves óraszám /

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

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### OKTATÁS CÉLJA / AIM OF THE COURSE

**Goals:**The subject deals with the noise and vibration questions in the built environment. The goal of the subject is that the students should be able to understand the basics of the technical acoustics, can perform simple noise- and vibration measurements and understand the main legal and technical questions connected to the planning of infrastructures.

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### TANTÁRGY TARTALMA / DESCRIPTION

**Topics:**

- Basics of technical acoustics. Noise- and vibration levels.
  - Measuring noise and vibration. Noise level meters, measuring systems
  - Free field noise propagation.
  - Noise propagation in rooms. Building and room acoustics.
  - Noise level limiting values inside of buildings and in the environment.
  - Traffic noise: Road and railway noise and its propagation. Possibilities for reduction.
  - Noise from the point of view of town planning: noise maps, calculation methods, quiet areas, areas for noise reduction.
  - Vibration effects and regulation on human being and on buildings.
  - Vibration propagation in soil. Methods for investigation.
  - Vibration caused by road and railway traffic. Possibilities for reduction.
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### SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

**Consultation:**At a given time and place

**Acceptance of semester:**

- Sufficiently attended to the lectures and exercises (measurements)
- Making noise measurement report about the noise measurements
- Performing one test during the semester

**Exam and evaluation:**

Exams will be at a given time and given place in exam period. Enter for an examination by means of the NEPTUN system. Enter for exams are allowed for students with semester acceptance.

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## KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL