



SUBJECT DATASHEET

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| Semester: | 2009/10/1 |
| Subject: | Noise- and Vibration Protection |
| Code: | VEMKKVB112Z |
| Responsible department: | Department of Environmental Engineering |
| Responsible department code: | MKKV |
| Responsible lecturer: | dr. Endre Domokos |

Educational objectives:

The aim of the course is that the students learn fundamentals of physics of noise- and vibration-protection. What physiological effect caused by noise. After the successful tests the students able to calculate noise-protection equation and they can elaborate noise-protection blueprint.

Detailed content of the subject:

1. History of noise- and vibration-protection 2. Spectrum, sound-field, elements 3. Structure of human ears (acoustically) 4. Range of audibility, auditory sensation, irritation-analysis 5. Sound pressure-level, mathematics of levels 6. Acoustic-efficiency, Spread of noise in aeriform medium 7. Spread of noise in solid and liquid medium 8. Test 9. Point and line sound-emitters 10. Indexes (noisiness, equal sound pressure-level, articulation) 11. Legal regulation of noise-protection 12. Grouping and specific of noisesources (aeropulsive, aerodynamic, thermodynamic) 13. Spread of noise through wall 14. Measure-instruments and its usability 15. Test

Requirements:

2 tests ($\geq 50\%$ average)

Required and suggested references:

Dr. Kováts Attila: Zaj- és rezgésvédelem, Veszprémi Egyetemi Könyvkiadó, 2004 P. Nagy József: A hangszigetelés elmélete és gyakorlata, Akusztika, Akadémiai Kiadó, 2004