

# MA 566-Fundamentals of Aerodynamic Noise

<b>Course Code:</b>	MA-566
<b>UTAA Credit (Theoretical-Laboratory hours/week):</b>	3(3-0)
<b>ECTS Credit:</b>	6.0
<b>Department:</b>	Mechanical and Aeronautical Engineering
<b>Language of Instruction:</b>	English
<b>Level of Study:</b>	Graduate
<b>Offered Semester:</b>	Fall and Spring Semesters.

## Course Objectives

Fundamentals of acoustics and vibration. Acoustic noise and vibration measurement methods. Outdoor sound propagation. Sound in small enclosures. Noise in rooms. Sound absorbing materials and sound absorbers. Interaction of sound waves with solid structures. Criteria for noise and vibration in human bodies. Machinery noise and vibrations.

## Course Content

to provide basic theoretical and practical knowledge about noise and vibrations,  
to provide noise and vibration measurement and evaluation methods,  
to teach the modern evaluation techniques,  
to discuss the noise and vibration control practices for machines, vehicles etc

## Course Learning Outcomes

- 1- knowledge about the theoretical principles of acoustics and vibrations,
- 2-theoretical and practical knowledge and evaluation techniques on the effects of noise and vibrations on people and systems,
- 3-knowledge on the noise and vibration measurement techniques,
- 4-experience on the industrial noise and vibration control.