

MA 568- Turbulent Boundary Layers

Course Code:	MA-568
UTAA Credit (Theoretical-Laboratory hours/week):	3(3-0)
ECTS Credit:	6.0
Department:	Mechanical and Aeronautical Engineering
Language of Instruction:	English
Level of Study:	Graduate
Offered Semester:	Fall and Spring Semesters.

Course Objectives

To the students with the importance of the boundary layer flow. Theories on the subject to use to solve real engineering problems.

Course Content

Forces acting in flow field. Momentum and energy conservation principle. Navier-Stokes and energy equations and their applications. Boundary layer theory. Similarity solution of boundary layer equations. Thermal boundary layers. Turbulent boundary layers. Momentum and energy equations in turbulent boundary layers

Course Learning Outcomes

- 1-Have knowledge about boundary layer.
- 2-Solve turbulence boundary layer problems.