YILDIZ TECHNICAL UNIVERSITY

MECHANICAL ENGINEERING DEPARTMENT

COMPUTATIONAL FLUID MECHANICS

Instructor : Prof. Dr. Hakan Demir

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Week 1 : Introduction to CFD and CFD Procedure (Chapters 1 and 2)

Week 2 : Basic CFD Equations (Chapter 3)

Week 3 : Mesh Generation and Boundary Conditions (Chapters 3 and 6)

Week 4 : Basic Numerical Methods and Techniques (Chapter 4)

Week 5 : CFD Solution Analysis and Turbulence Modeling (Chapters 5 and 6)

Week 6 : CFD Lab – ANSYS Design Modeller

Week 7 : CFD Lab – ANSYS Design Modeller

Week 8 : Midterm-I

Week 9 : CFD Lab – ANSYS Meshing

Week 10 : CFD Lab – ANSYS Meshing

Week 11 : CFD Lab – ANSYS Fluent

Week 12 : CFD Lab – ANSYS Fluent

Week 13 : CFD Lab – ANSYS Fluent

Week 14 : CFD Lab – ANSYS Fluent

CFD Project (Final)

References	• Computational Fluid Dynamics - A Practical Approach, Jiyuan Tu, Guan-Heng Yeoh, Chaoqun Liu, Butterworth-Heinemann
Grading:	20% Midterm I 40% Homework I 40% Final Project
Notes:	