ASSIGNMENT SHEET ME451 INTRODUCTION TO AERODYNAMICS

TEXT: KUETHE/CHOW, Foundations of Aerodynamics, 5th Ed., J. Wiley

Week	Topic	Reading	Problems
1.	Properties	1.1-1.3, 1.5-1.9	1.7.1
	Kinematics	2.1-2.8	2.3.2, 2.4.3,2.6.3,2.7.3
	Quiz 0		
2.	Kinematics, contd.	2.9-2.16	2.8.3,2.9.1,2.10.3,2.12.2,2.13.6
3.	Dynamics	3.1-3.7	3.2.2,3.2.4,3.4.1,3.7.2
	QUIZ 1		
4.	Flow about a body	4.1-4.6	4.2.2,4.4.3,4.5.1,4.6.1
5-6.	Flow about a body, contd.	4.6-4.10	4.8.1
	Airfoil theory	5.1-5.3	5.3.1
	QUIZ 2		
7.	Airfoil theory	5.4-5.7	5.5.1
8.	Finite wing	6.1-6.6	6.3.1,6.5.1
9.	Compressible fluids	7.1-7.5,8.1-8.8	7.2.1,7.3.1,8.4.1,8.8.1
	and governing equations		
	QUIZ 3		
10-11.	One-dimensional flows	9.1-9.9	9.2.1,9.3.2,9.3.4,9.6.1,9.9.1
12.	Compressible flows	10.1-10.5	10.2.2,10.3.1,10.4.1,10.4.3
13-14.	Shock relations	10.6-10.10	10.4.4,10.5.1,10.6.1,10.7.2
			10.8.1,10.8.5,10.10.1
15.	Final Examination		

Grading: **Homework 18%**
4 Quizzes (2+15x3=47%)
Final 35%

ME 451
INTRODUCTION TO AERODYNAMICS

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Wednesday 11:30 am-12:50 pm, Friday 2:30 pm-3:50 pm

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Online Office Hours: by appointment

Prerequisite: undergraduate fluid mechanics and thermodynamics I

Homework problems will be assigned every week (see the problems handout sheet). These are intended to help broaden and solidify your understanding of the subject matter, and to give you practice in putting your understanding of the material into words. It is therefore essential that you do as many of them as you can. However, only those that are assigned in the class should actually be handed in. From each set of homework problems collected, one problem will be chosen at random and graded. *Late homework will not be accepted.*

There will be ***no*** makeup for missed quizzes. Unexcused quizzes will earn 0 points. The grade for an excused quiz will be based on the final exam grade.