MAE 135 Compressible Flow
Spring 2008

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Text: *Modern Compressible Flow*, John Anderson
Web page: `http://supersonic.eng.uci.edu/mae135`

COURSE OUTLINE

SUBJECT	SECTIONS IN ANDERSON
Review of Thermodynamics:	
First and Second Laws	1.4
Reversible and Irreversible Processes	1.4
Equation of State	1.4
One-Dimensional Flow:	
Conservation Equations	3.2, 5.2
Isentropic Flow	1.4
Speed of Sound	3.3
Total Temperature and Pressure	3.5
Area-Velocity Relation	5.3
Area-Mach Number Relation	5.4
Fanno Flow	3.9
Rayleigh Flow	3.8
Normal-Shock Relations	3.6
Two-Dimensional Flow:	
Oblique Shocks	4.1-4.4, 4.6, 4.11
Compression, Expansion Waves	4.13
Prandtl-Meyer Function	4.13
Airfoil Lift and Drag	4.14
Nozzle Flow	5.4
Shock Reflection	5.6
Method of Characteristics	
Supersonic Nozzle Design	11.7
Supersonic Wind Tunnel Design	11.17
Measurement Techniques:	
Velocity, Temperature	
Schlieren Method	

Class Policy:
YOU ARE EXPECTED TO ATTEND EVERY LECTURE. Course material is based mainly on the lecture notes.

Grading Policy:

Homework	30%
Midterm exam	30%
Final exam	40%