

# MAE4230/5230

## Lecture 14

2011-03-14

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- Midterm **Review**

# Topics on Fluid Dynamics

- Chapter 1, 2 (elementary viscous flows), and 8 (boundary layers) in Acheson
- Film and Film notes by GI Taylor

# Topics on Numerics

- finite-difference method (1st and 2nd order in 1D and 2D)
- finite volume method
- determination of truncation error for first and second order accurate finite-difference approximations

# Practical Tips

- Go through the updated syllabus (up to 3/7)
- Review all of the home works
- Need to be able to apply equations to specific problems and solve basic 1d differential equations.

# Q & A

- do I need to remember formula? (nope)
- can I bring a cheat sheet? (nope)
- will basic equations be provided? (yes)
- how many problems in the exam? 4