

# AME 530A – Dynamics of Incompressible Fluids

## Fall 2011

Prof. Tait Pottebaum  
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RRB 218  
office hours: to be determined

### Class meeting time and location

Mondays and Wednesdays, 2:00 – 3:20 PM  
OHE 100D

### Required textbook

*Incompressible Flow* (3<sup>rd</sup> Edition), Ronald L. Panton, John Wiley & Sons  
ISBN: 978-0471261223

### Course outline

1. Introduction and background (basic fluid concepts, vector calculus, tensors)
2. Ideal flow
3. Viscous flow
4. Vorticity
5. Boundary layers
6. Turbulence (time permitting)

### Grading

Homework (approximately every other week)	50%
Mid-term exam	20%
Final exam	30%

### Exam dates and times

Mid-term: In class, sometime in October; exact date to be determined  
Final: Friday, December 9, 2 – 4 PM, location to be determined

### Notes

- **Academic Integrity** All work that you submit must be solely produced by you. Collaboration with classmates is allowed only regarding general approaches to problems and comparison of final answers. When actually working out solutions (any time you are writing things down), you must work alone.
- Homework will be distributed online each Wednesday and will be due the following Wednesday **in class by 2:00 PM**.
- **No late work will be accepted** without prior arrangements.
- Exams will be open book (official textbook only), notes and homework. No other materials will be allowed.