

ME152A: Fluid Mechanics
Fall 2010

Instructor: Dr. Rouslan Krechetnikov

Contact:

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Prerequisite: Mathematics 5C, ME16, and ME 151A (may be taken concurrently); open to ME majors only

Format:

Lectures: TUE/THU 9:30-10:45 am in Buch 1930, beginning on September 23 and ending on December 2.

Textbook (required): “Fundamentals of Fluid Mechanics” by B.R. Munson, D.F. Young, T.H. Okiishi, and W.W. Huebsch, 6th edition, Wiley (available at the bookstore).

Topics:

Introduction to

- the fundamental concepts in fluid mechanics
- basic fluid properties

Fluid statics, kinematics, dynamics

Control volume analysis

Differential analysis of fluid flow

Dimensional analysis and similitude

Homeworks: there will be six homework sets, each due at 11:59 am on designated Fridays (the assignment box is located to the left of the entrance to Rm. 2243 Engineering II). Late or impossible to read homeworks will not be graded.

Midterm tests: there will be two tests, held during the class

Test 1: Tuesday, October 19

Test 2: Tuesday, November 9

Policy: closed-book, no collaboration is allowed. There will be no make-up tests. In case when a student misses a test due to a substantiated reason, the term mark may be pro-rated.

Final examination:

Date and time: December 8, 8:00-11:00 am

Policy: closed-book, no collaboration is allowed.

Grading policy:

Homeworks: 20%

Tests: 30%

Final exam: 50%