ME 241 Fluid Mechanics I (Spring 2005)  S. Hilgenfeldt (room M442)
Lecture: MTuW 1 pm – 1:50pm, Room M177 (Tech Inst)  sascha@northwestern.edu
Tutorial/exercises:  F 1 pm – 1:50pm, Room M177 (Tech Inst)
Office Hours: see Blackboard website
TAs: see Blackboard, Room, hours: see Blackboard
Blackboard web page: http://www.northwestern.edu/ => Students => Course Management System (Blackboard)

Week of *  Topic  Reading  Labs/HW/Exams
Mar 29  Intro  1.1-1.4, 1.6, 1.7.1, 1.7.2, 1.9  Math preparation
Apr  4  Statics  2.1-2.3, 2.5-2.8, 2.10  HW1 due
Apr 11  Statics, Bernoulli  2.11, 3.1-3.5  HW2 due
Apr 18  Bernoulli, CV  3.6, 3.8, 4.1-4.3  HW3 due, Lab 1 (Statics)
Apr 25  Kinematics, Cons. Laws  4.4, 5.1-5.3  HW4 due, Lab 1 due
May  2  Diff. Cons. Laws  6.1-6.3  HW5 due, Mid-Term Exam
May  9  Dim. Analysis, inviscid flow  7.1-7.5, 6.4  HW6 due, Lab 2 (Momentum)
May 16  Navier-Stokes Eqns.  6.5, 6.6.1, 6.8, 6.9  HW7 due, Lab 2 due
May 23  Pipe Flow  8.1-8.5  HW8 due, Lab 3 (Pipe Flow)
May 30  Selected Topics  100%  Lab 3 due
June  6  Exam Week  100%  Final Exam

* This schedule is tentative and subject to change.


Grading:

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<tr>
<td>Final exam</td>
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<td>Mid-term exam</td>
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<td>Labs</td>
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<td>Homework</td>
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Note: A make-up exam will be given only under one of the following 2 conditions: 1) To accommodate an excused absence (e.g. University athletics, a job interview, but not including vacations, week-ends at home, etc); or 2) if the make-up is necessary due to a personal emergency (sickness, death of family member, etc.—this requires notification of Dean Holtgreive or a note from the Student Health Service).

The mid-term exam will be held on Friday, May 6. The final exam will be held on a date in the exam week to be announced. Copying another person's work or using electronic devices or other techniques to gain an unfair advantage during a quiz is considered academic dishonesty. All cases of academic dishonesty will be brought directly to Dean Carr. Punishment can range from a lower grade in the course to exclusion from the University.

Labs: Three labs are required (compulsory) during the quarter. All labs must be completed for a student to pass the course! Each lab is 1 to 2 hours long. The labs require reports due one week after the lab. Lab experiments are done as a team, but lab reports are to be prepared individually. Copying another student's work or data or fabricating data constitutes academic dishonesty. Location of lab sections: see Blackboard. All lab sections (for both sections of ME 241 and the section of BME 270) are identical.

Homework: If you do not complete the homework, you will most certainly be unable to perform well on the exams and do poorly in the course. Homework will be assigned on Fridays and will be due on the following Friday in the TA's tutorial. Answers will be posted on Blackboard for study. Solved problems are also available on the CD-ROM that comes with the book. It is reasonable to work together to learn the material. However, copying another student's work or turning in another student's work as your own constitutes academic dishonesty.