Classes: MWF 11:30-12:20 DeBartolo 155

Optional Tutorial Session: To be determined – Tutors are available for this class

Instructor: Dr. Diogo Bolster  
Office: 120c Cushing Hall  
Office phone: 574-631-0965  
Email: dbolster@nd.edu

Office hours: Tuesdays 3-5:30. Also you are welcome in my office any time the door is open.

Teaching Assistants:

Paolo Giani - pgiani@nd.edu  
Mariana Alifa - malifa@nd.edu  
Tianci Huang - thuang5@nd.edu

Office hours for the TA will be announced

Course Webpage: http://www3.nd.edu/~bolster/Diogo_Bolster/Fluids.html


Textbook web site: http://www.wiley.com then search for the text and follow links. The inside of your front cover has an access code to register for the web site. If you bought the book used, the code will probably have expired and you will need to find some friendly person who will let you use their access code.

Course Description:
This is an introductory course in fluid mechanics aimed at Civil Engineering students. It concentrates on the fundamentals of fluid flow and forces, and will be followed next year by Hydraulics, which looks at somewhat more practical problems.

We will broadly speaking cover Chapters 1-8 of the textbook

Topics Covered:

- Introduction: What is Fluid Mechanics?  
- Fluids at Rest  
- Fluids in Motion: An Introduction  
- Conservation of Mass  
- Conservation of Momentum
• Simple Flow Problems
• Dimensional Analysis
• The Stream Function
• Potential Flows
• Flow in Pipes

**Matlab:** In this course, there will be some problems that are most easily solved with some form of coding. I will use Matlab, but you are welcome to use whatever works best for you.

**Academic Code of Honor:** Follow the code at all times. No cheating allowed. Students are encouraged to discuss homework problems with others in the class, but all work handed in must be your own, not copied from your classmates.

**Student responsibilities:** Do the work and keep up to date.

**Grading:**

Homework: 15%
In class quizzes, participation and attendance: 5%
First midterm 20%
Second midterm 20%
Final exam 40%

Two Midterms for now are provisionally scheduled for

(i) Midterm 1: Wednesday October 2
(ii) Midterm 2: Wednesday November 13

The instructor reserves the right to change these dates should it be necessary. Advanced notice will be given should this occur.

**Late Work:** Homework assignments due on Wednesdays (or other date as indicated) at beginning of class. No assignments will be accepted after homeworks have been returned. Assignments handed in late but before assignments are returned will have a 10% penalty per day. If you are going to be late for a good reason, let the instructor know beforehand.

**Notes:** This syllabus is subject to change as events warrant.