ENG EK303 Fluid Mechanics **Spring 2013**

Prof. Raymond J. Nagem
110 Cummington St., Room 420
(617) 353-5925
nagem@bu.edu

Text: B. R. Munson, *Fundamentals of Fluid Mechanics*, 7th ed., John Wiley & Sons, 2013.

Week Beginning	Topics	Reading
9/2	Fluid properties	Secs. 1.1-1.10
9/9	Fluid statics, bouyancy	Secs. 2.1-2.11
9/16	Bernoulli equation	Secs. 3.1-3.8
9/23	"	
9/30	Fluid kinematics, conservation of mass	Secs. 4.1-4.4 Sec. 5.1
10/7	Momentum equation, energy equation	Secs. 5.2-5.3
10/14	Differential flow analysis	Secs. 6.1-6.4
10/21	Navier-Stokes equation	Secs. 6.8-6.9
10/28	"	
11/4	Dimensional analysis	Secs. 7.1-7.6
11/11	Modeling and similitude	Secs. 7.7-7.9
11/18	Pipe flow	Secs. 8.1-8.6
11/25	"	Secs. 8.4-8.6
12/2	External flows	Secs. 9.1-8.4
12/9	"	

Grading: Three tests, each worth 25% of final grade.
Two laboratory exercises, together worth 15% of final grade.
Homework assignments, together worth 10% of final grade.