ENG ME 303 Fluid Mechanics **Fall 2021**

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Text: B. R. Munson et al., *Fundamentals of Fluid Mechanics*, 8th ed., John Wiley & Sons, 2019.

Week Beginning	Topics	Reading
8/30	Fluid properties	Secs. 1.1 – 1.11
9/6	Fluid statics	Secs. 2.1 – 2.6
9/13	"	Secs. 2.7 – 2.13
9/20	Bernoulli equation	Secs. 3.1 – 3.9
9/27	Kinematics of fluid flow	Secs. 4.1-4.5
10/4	Continuity equation	Sec. 5.1
10/11	Linear momentum equation	Sec. 5.2
10/18	Energy equation	Secs. 5.3, 5.5
10/25	Differential analysis of fluid flow	Secs. 6.1 – 6.4
11/1	Potential flow	Secs. 6.5 – 6.9
11/8	Viscous flow	Secs. 6.8 – 6.9
11/15	Dimensional analysis	Secs. 7.1 – 7.11
11/22	Pipe flow	Secs. 8.1 – 8.7
11/29	"	"
12/6	External flow, drag and lift	Secs. 9.1 – 9.4

Grading: Three tests, each worth 25% of final grade.
Laboratory exercise, worth 10% of final grade.
Numerica simulation exercise, worth 10% of final grade.
Homework assignments, together worth 5% of final grade.