

ENG ME 303 Fluid Mechanics**Fall 2022**

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

<u>Week Beginning</u>	<u>Topics</u>	<u>Reading</u>
9/5	Fluid properties	Secs. 1.1 – 1.11
9/12	Fluid statics	Secs. 2.1 – 2.6
9/19	"	Secs. 2.7 – 2.13
9/26	Bernoulli equation	Secs. 3.1 – 3.9
10/3	Kinematics of fluid flow	Secs. 4.1-4.5
10/10	Continuity equation	Sec. 5.1
10/17	Linear momentum equation	Sec. 5.2
10/24	Energy equation	Secs. 5.3, 5.5
10/31	Differential analysis of fluid flow	Secs. 6.1 – 6.4
11/7	Potential flow	Secs. 6.5 – 6.9
11/14	Viscous flow	Secs. 6.8 – 6.9
11/21	Dimensional analysis	Secs. 7.1 – 7.11
11/28	Pipe flow	Secs. 8.1 – 8.7
12/5	"	"
12/12	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.
Numerical simulation exercise, worth 10% of final grade.
Homework assignments, together worth 5% of final grade.