

CHAPTER OVERVIEW

8: Fluid Mechanics

This chapter describes the basic notions of fluid mechanics, discusses a few core problems of statics and dynamics of ideal and viscous fluids, and gives a very brief, rather superficial review of such a complicated phenomenon as turbulence. In addition, the viscous fluid flow discussion is used as a platform for an elementary introduction to numerical methods of the partial differential equation solution - whose importance extends well beyond this particular field.

[8.1: Hydrostatics](#)

[8.2: Surface Tension Effects](#)

[8.3: Kinematics](#)

[8.4: Dynamics - Ideal Fluids](#)

[8.5: Dynamics- Viscous Fluids](#)

[8.6: Turbulence](#)

[8.7: Exercise Problems](#)

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