

CHAPTER OVERVIEW

20: Miscellaneous

This chapter is a miscellany of diverse and unrelated topics – namely surface tension, shear modulus and viscosity – discussed only for the purpose of presenting a few more examples of elementary problems in mechanics. It is not intended in any way to substitute for a comprehensive course in any of the vast and interesting fields of surface chemistry, elasticity or hydrodynamics. All of these subjects have a huge and specialized literature, each worthy of a full-length course, and I am not remotely competent to offer one. Nevertheless, the few simple problems chosen in this chapter are suitable for a bit more practice in classical mechanics.

Topic hierarchy

[20.1: Introduction](#)

[20.2: Surface Tension](#)

[20.2.1: Excess Pressure Inside Drops and Bubbles](#)

[20.2.2: Angle of Contact](#)

[20.2.3: Capillary Rise](#)

[20.3: Shear Modulus and Torsion Constant](#)

[20.4: Viscosity](#)

[20.4.1: Poiseuille's Law](#)

[20.4.2: The Couette Viscometer](#)

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