Schedule of a 14-class course

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July 26, 2019

Abstract

A schedule of a 14-class course based on the book. Each class is 90 minutes long.

1. Introduction (Ch 1), Continuity of mass (Ch 2)

2. Euler's equations 1 (§3.1 - 3.4)

3. Euler's equations 2 (§3.5 - 3.6)

4. Hydrostatics (Ch 4). Sound waves (Ch 5)

5. Potential flow (Ch 6)

6. Gravity waves (Ch 7)

7. Work and energy (Ch 8)

8. Navier-Stokes equations 1 (§9.1 - 9.2)

9. Navier-Stokes equations 2 (§9.3 - 9.4)

10. The energy equation (Ch 10)

11. Solutions to the NS equations 1: Couette and Poiseuille flows (§11.1, 11.2)

12. Solutions to the NS equations 2: Taylor-Green vortices (§11.3), attenuation of sound waves (§11.4)

13. The overdamped limit(§12.1 - 12.2)

14. The viscous boundary layer (Ch 13)