

3306 physics lectures, Spring 2026

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https://www.physics.smu.edu/saptarnab/PH3306_Spring_2026/

Based on Simon Dalley's lectures delivered in spring 2025



WARM UP 12: Engines (Halliday: 20.2 & 20.3)

Write your answers in the space following the warm-up question if you can. Write as if you are explaining to a fellow student. If you need more space, you are probably over-thinking things.

Restate the 2nd law of thermodynamics in terms of a Carnot engine.

What is meant by an “ideal” engine?

What is the difference between a Carnot engine and an ideal Stirling engine?

Explain thermodynamically how refrigeration is the opposite process of an engine.