

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 10: Degrees of Freedom (Halliday 19.6-19.9)

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.

Describe two phenomena caused by the fastest-moving molecules in a gas.

Explain why the specific heat differs at constant volume from that at constant pressure.

Explain what is meant by the degrees of freedom of a molecule.

Explain what happens to the temperature of a gas when it expands adiabatically.