

Thermodynamics

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{youtube}mb8LqNIHeLY&list=PLI6m4jcR_DbOHx7PsJSYxCUBbXZjEofjR{/youtube} Fundamentals of Physics (PHYS 200)

This is the first of a series of lectures on thermodynamics. The discussion begins with understanding "temperature." Zeroth's law is introduced and explained. Concepts such as "absolute zero" and "triple point of water" are defined. Measuring temperature through a number of instruments is addressed as well as the different scales of measurement. The second half of the lecture is devoted to heat and heat transfer. Concepts such as "convection" and "conduction" are explained thoroughly.

00:00 - Chapter 1. Temperature as a Macroscopic Thermodynamic Property

06:45 - Chapter 2. Calibrating Temperature Instruments

22:25 - Chapter 3. Absolute Zero, Triple Point of Water, The Kelvin

28:55 - Chapter 4. Specific Heat and Other Thermal Properties of Materials

43:17 - Chapter 5. Phase Change

55:06 - Chapter 6. Heat Transfer by Radiation, Convection and Conduction

01:03:27 - Chapter 7. Heat as Atomic Kinetic Energy and its Measurement youtube.com

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