

Classical Thermodynamics (TD)

- TD based on a few empirical (experience-based) **laws or postulates**, e.g.,
 1. Bodies are in thermal equilibrium with each other only when they have the same degree of “hotness”
The Zeroth Law of TD
 2. Impossibility of perpetual motion devices, i.e., you can’t create energy or energy is conserved
The 1st Law of TD
 3. Impossibility of reversing any natural process in its entirety, i.e., these processes depend on time direction
The 2nd Law TD
 4. The number of independent TD properties necessary to define a state can be determined *a priori*
The State Postulate