

2 Midterm	$\frac{1}{2}$ each
1 Final	$\frac{1}{2}$
HW (5-10)	$\frac{1}{2}$

Pathria - Statistical Mechanics

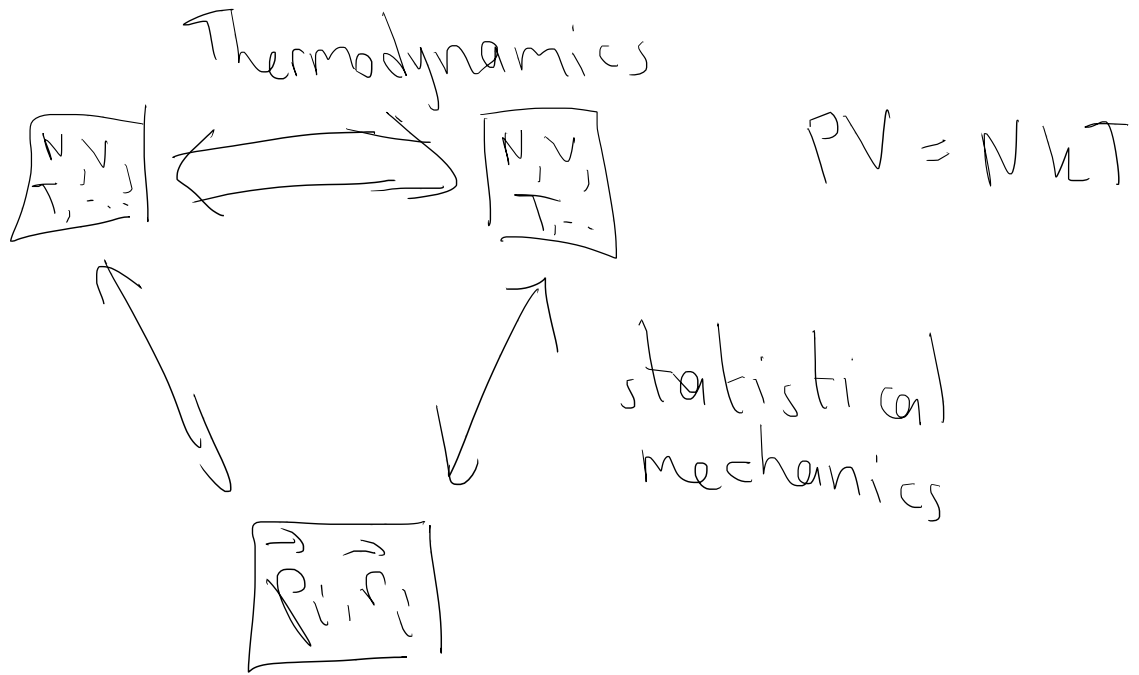
- Thermodynamics 1-2 week
- Relation of SM to Thermodynamics
- Ensemble Theory
 - Micro canonical - fixed energy and N
 - Canonical - fixed temp, N
 - Grand Canonical - fixed temp and chemical potential
- Quantum statistics

N, T, V, μ, d, \dots

Macroscopic description

10^{23} $\vec{p}_i, \vec{r}_i / 2^n$

Microscopic description



$$PV = NkT \Rightarrow E = E(T)$$

$$E = \int c_v(T) dT$$