

**PHYSICS 235**  
**STATISTICAL AND THERMAL PHYSICS**  
**(3.0 ; 3 credits)**

**Textbook:** Thermal Physics  
By: Ralph Baierlein  
Publisher: Cambridge University Press

**Contents:**

1. The First Law of Thermodynamics .
2. The Second Law of Thermodynamics .
3. Entropy in Quantum Theory .
4. The Canonical Probability Distribution .
5. Photons and Phonons.
6. Fermions and Bosons at Low Temperature.
7. Free Energies .
8. Chemical Equilibrium .
9. Phase Equilibrium.
10. Transport Processes
11. Critical Phenomena

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