

PY 311 - Statistical Mechanics and Thermodynamics

3 Credit Hours

This course builds on the fundamentals of classical mechanics and examines the statistical behavior of a large number of particles. This course also investigates how the states of microscopic systems give rise to macroscopic thermal properties and how changes in these properties are related to heat. The topics that will be covered include entropy, energy and temperature, ensembles, the partition function, gases, equations of state, quantum statistics, the laws of thermodynamics, and phase transitions.