Nebraska Wesleyan University

PHYS 4100 Thermal and Statistical Physics

Catalog

2025-2026

Course Description

An introduction to classical and statistical thermodynamics. Topics include the ideal gas equation of state, the First and Second Laws of Thermodynamics, the thermodynamic identity, engines and refrigerators, the thermodynamic potentials, and classical and quantum distribution functions. Vector calculus will be developed and heavily used.
Three lectures per week.
One recitation per week.
Prerequisite(s): PHYS 2400 Introduction to Modern Physics and MATH 2600 Calculus III or MATH 3100 Differential Equations and computer programming skills or permission of the instructor.
(Normally offered alternate spring semesters.)

Course Hours

4 hours

Departments

1. Physics