COURSE DETAIL

STATISTICAL PHYSICS
Country Australia
Host Institution University of Melbourne
Program(s) University of Melbourne
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Physics
UCEAP Course Number 130
UCEAP Course Suffix
UCEAP Official Title STATISTICAL PHYSICS
UCEAP Transcript Title STATISTICAL PHYSICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
This course explores statistical mechanics, the microscopic basis of classical thermodynamics. It is one of the core areas of physics, finding wide application in solid state physics, astrophysics, plasma physics, and cosmology. Topics include ensembles and the basic postulate; the statistical basis of the second and third laws of thermodynamics; canonical, micro-canonical and grand-canonical ensembles, and associated statistical and thermodynamic functions; ideal quantum gases; black body radiation; the classical limit and an introduction to real gases, and applications to solid state physics.

Language(s) of Instruction
English

Host Institution Course Number
PHYC30017

Host Institution Course Title
STATISTICAL PHYSICS

Host Institution Course Details

Host Institution Campus
Melbourne

Host Institution Faculty

Host Institution Degree

Host Institution Department
Physics

Course Last Reviewed

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