



Tutorials in Thermal & Statistical Physics

Indicates a research-demonstrated benefit

Overview

Guided-inquiry worksheet activities to help students develop a better understanding of upper-division thermodynamics and statistical mechanics.



Type of Method Curriculum supplement, Tutorials



Level

Designed for: Intermediate , Upper-level Undergraduate

Can be adapted for: Intro College Calculus-based, Intro College Algebra-based



Setting

Designed for: Lecture - Small (<30 students) , Recitation/Discussion Session



Coverage

Many topics with less depth



Topics

Thermal / Statistical



Instructor Effort

Medium



Skills

Designed for: Conceptual understanding

Can be adapted for: Problem-solving skills



Research Validation

Based on research into: student ideas about specific topics

Demonstrated to improve: conceptual understanding

Studied using: student interviews , research at multiple institutions



Compatible Methods

[Peer Instruction](#), [PhET](#), [JiTT](#), [CGPS](#), [Physlets](#), [SCALE-UP](#), [OSP](#), [LA Program](#), [CAE TPS](#), [Paradigms](#), [Tutorials](#), [Clickers](#)



Similar Methods

[UW Tutorials](#), [ABP Tutorials](#), [OST Tutorials](#), [Lecture-Tutorials](#), [QuILTs](#), [Mechanics Tutorials](#), [Tutorials](#)



Developer(s)

John Thompson, Michael Loverude, David Meltzer, Warren Christensen, Don Mountcastle



Resources

For more information and to access the tutorials, email Mike Loverude at mloverude@fullerton.edu.

