



# Mechanics, Heat and Sound

## Lab for Mechanics, Heat and Sound

4 College Credits (3 for lecture, 1 for lab) | UT Course Codes: PHY 302K, PHY 102M | TCCN Courses: PHYS 1301, PHYS 1101 | Core Code: 030

High School Course Prerequisites: Algebra I and Geometry required, Algebra II or Precalculus recommended

**Explore central physics concepts firsthand through guided-inquiry lab investigations.**

This algebra-based (non-calculus) course in mechanics fulfills a general physics requirement and lays important conceptual groundwork for STEM majors.

Students study topics such as Newtonian mechanics (motion, force, energy and rotation), solid and fluid mechanics, oscillations, waves, sound and heat. The lab component provides hands-on investigations to connect these concepts with real-world experience.

**Physics I + Lab**



## What Students Gain

- Foundational physics knowledge applicable to future courses or careers in science, medicine or computing
- College-level scientific reasoning, data collection and analytical skills
- Scientific communication and collaboration skills

## Course Structure

This course utilizes Peer Instruction and reinforces the general idea that the behavior of many systems in the world can be described precisely with simple mathematics.

## Big Ideas

- Problem solving
- Mechanics
- Waves and sound
- Heat
- Experimentation
- Scientific inquiry

### What Students Say



“It is a very challenging but also very motivational class. You will be able to adapt to new learning environments that you have not experienced before.”

