

# Phys 427: Introduction to Condensed Matter Physics

## Physics & Astronomy

This course covers ideal crystals and their three-dimensional lattices, and real condensed matter systems with surfaces and interfaces, which may be arranged as alloys, liquids, glasses, and polymers. Topics include electronic structure, energy bands, electron transport phenomena, vibrations of a crystal lattice, semiconductor physics, and optical properties of condensed matter.

3 Credits

### Prerequisites

- [Phys 317: Introduction to Modern Physics I](#)

### One-way corequisites

- [Phys 451: Introduction to Quantum Mechanics](#)

### Instruction Type(s)

- Lecture: Lecture for Phys 427

### Subject Areas

- [Physics, General](#)

### Related Areas

- [Acoustics](#)
- [Atomic/Molecular Physics](#)
- [Condensed Matter and Materials Physics](#)
- [Elementary Particle Physics](#)
- [Nuclear Physics](#)
- [Optics/Optical Sciences](#)
- [Physics, Other](#)
- [Theoretical and Mathematical Physics](#)

