

# 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 \$target.descriptions.MinimumGrade\$

### Instruction Type(s)

• Lecture: Lecture for Phys 427

#### **Subject Areas**

• Physics, General

#### **Related Areas**

- <u>Acoustics</u>
- <u>Atomic/Molecular Physics</u>
- <u>Condensed Matter and Materials Physics</u>
- <u>Elementary Particle Physics</u>
- <u>Nuclear Physics</u>
- Optics/Optical Sciences
- <u>Physics, Other</u>
- <u>Theoretical and Mathematical Physics</u>

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

