

# Physics 7550: Advanced Condensed Matter Physics: Solid State

**Instructor:** Zhixian Zhou

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**Lectures:** Tue and Thu 5:30 PM -6:45 PM, Room 177 Physics

**Additional discussion section:** to be determined

## Reference Books

John Singleton, Band Theory and Electronic Properties

Stephen Blundell, Magnetism in Condensed Matter

Kittel, Introduction to Solid State Physics

Ashcroft and Mermin, Solid State Physics

## Course Coverage:

Current topics in condensed matter physics, including electronic band structure, magnetism, superconductivity, nanophysics, and the optical properties of solids.

## Grade

Quizzes – 30%

First presentation – 15%

Term paper - 30%

Final presentation– 25%

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Total –100%