

**Course Information**  
**PHYS 452 /626**  
**Solid State Physics**

**Instructor:** Dr. S.M. Bose,  
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**Office Hours:** 2:30-3:30 pm, Wednesday and Thursday, or by appointment.

**Text:** Introduction to Solid State Physics, Eighth Edition  
Author: Charles Kittel  
Publisher: John Wiley & Sons

**Supplementary Reading:**

Elementary Solid State Physics by M.A. Omar  
Solid State Physics, Second Edition by J.S. Blakemore  
Solid State and Semiconductor Physics by J.P. McKelvey  
Fundamentals of Solid State Physics by J.R. Christman

Advanced level:

Solid State Physics by N.W. Ashcroft and N.D. Mermin  
Solid State Physics: Principles and Modern Applications by J.J. Quinn and K-S Yi  
Principles of the Theory of Solids by J.M. Ziman  
Solid State Theory by W.A. Harrison

**Syllabus:** Course will cover first eight chapters and chapter 10 of the text supplemented by additional materials (see attached Course Outline).

**Goal:** Students will learn the basic concepts and their applications of solid state physics by attending lectures, class participation and problem solving. After finishing the course students will be ready to take advanced courses on condensed matter physics and many body physics.

**Lectures:** The course will consist of three hours of lecture per week. Students are required to attend all classes and participate in discussion. There will be a penalty for unexcused absence. Students will get most out of the lectures if they preview the lecture material before it is presented in class.

**Homework:** Homework problems will be assigned every week. Students will typically have one week to solve the problems and then submit the solutions for grading. While students are allowed to consult among themselves for solving the homework problems, submitted materials must be students' own work. Late homework will not be accepted except for valid reasons.

**Exams:** There will be one midterm exam and one cumulative final exam.

**Grading:** The final grade will be calculated as follows:

Homework + class attendance: 30%

Midterm: 30%

Final: 40%

A letter grade will be determined from the total scores.

