# Syllabus

Course: Physics 342/555, Spring 2005  
Instructor: Dr. Pengcheng Dai,  
Room 407A, ext. 4-1509 or 574-5233, e-mail: daip@ornl.gov  
Office hours: T. R. 1:10-2:00 pm

<table>
<thead>
<tr>
<th>Date</th>
<th>Chapter (Sections)</th>
<th>Homework problems will be assigned each week</th>
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</table>
| Jan. 13    | Chapters 1         | Chapter 1, problems 2, 3  
Homework due Jan. 20, 2005 |
| Jan. 18, 20| Chapter 2          | Chapter 2, problems 2, 4, 5, 6, 7  
Homework due Jan. 27, 2005 |
| Jan. 25, 27| Chapters 3, 4      | Chapter 3, problems 1, 4, 5  
Homework due Feb 3rd, 2005 |
| Feb. 1, 3  | Chapter 4, 5       | Chapter 4, problems 1, 2, 3, 6  
Homework due Feb. 10th |
| Feb. 8, 10 | Chapter 5, 6       | Chapter 5, problems 1, 2, 4  
Homework due Feb. 17 |
| Feb. 15, 17| Chapters 6, 7      | Chapter 6, problems 2, 3, 5, 6, 12  
Homework due Feb. 24 |
| Feb. 22, 24| Chapter 7, Exam on Feb. 24  
First example will cover materials from  
Jan 13 till Feb. 10th  
Homework due March 3 |
| March 1, 3 | Chapter 8          | Chapter 8 problems 2, 3, 5  
Homework due March 10. |
| March 8, 10| Chapter 9          | Chapter 9, problems 2, 3, 4, 7  
Homework due March 17 |
| March 15, 17| Chapter 10         | Chapter 10, problems 2, 6, 9  
Homework due March 31st. |
| March 29   | Chapter 12         | Chapter 12, problem 2, 3, 5  
Homework due April 12 |
| March 31   | 2nd exam on March 31| Second example will cover materials  
from Feb. 10th till March 17th. |
| April 5    | Chapter 12         | Chapter 12, problem 2, 3, 5  
Homework due April 12 |
| April 7, 12| Chapter 13         | Chapter 13, problems 1, 3, 7  
Homework due April 19th, 2005 |
| April 14, 19| Chapter 14        | Chapter 14, problems 1, 2, 4, 5  
Homework due April 26th, 2005 |
| April 21, 26| Chapter 15        | Chapter 15, problem 1, 2, 3  
Homework due May 3rd, 2004 |
| May 4      | Final exam         | 10:15-12:15 AM confirmed.  
Final exam is comprehensive |
Class attendance is expected. You are responsible for the material that will be covered in class and for all the homework problems assigned each week. The assigned homework will be graded each week. The homework needs to be done independently, and all homeworks have assigned deadlines. Please look over the web periodically for class announcements.

You will have at least one week of time to do the homework. Study by consulting first your class notes and then finding the appropriate material in your textbook. Study carefully the problems that are worked out in your textbook.

There will be three closed-book exams; the first two will contribute 25% each. The final exam will be comprehensive and it will carry 30% of the total weight. There will be no makeup exams.

The homework assigned each week will take 20% of the total weight in the final grade.

A CALCULATOR is required.

Talking or disturbing the class in any other way will not be tolerated.

Come and talk to me about any concerns you might have regarding this course.

For each exam, you can use your textbook and your calculator, but no other materials are allowed in the exams.

The textbooks for this class include:
1. 7th edition “Introduction to solid state physics” by Charles Kittel
2. “Inorganic structural chemistry” by Ulrich Muller.