

Overview

1 Week of 24/8 -

Read chapters 1 and 2 in the text book, B& B. Start working on homework assignment 1 (HD1). Material: Basic concepts and definitions, binari model, binomial coefficients and number of possible arrangements of, for example, atoms in particular sites in crystals, energy packets in quantum mechanical system, direction of spins of atoms (multiplicity function). Stirling approximation. review Taylor approximation for logrithm.

2 Week of 31/8 -

Read chapters 3 and 4 in B&B. Deliver solutions to homework assignment HD1 on 3. Sept.

3 Week of 7/9 -

Read chapters 4 and 20.1 in B&B. Deliver solutions to homework assignment HD2 on 10. Sept (this is the only time the order in the book is changed).

4 Week of 14/9 -

Read chapters Chapter 20.1 and chapters 4, 5 , 6 and 7 in B&B. Deliver solutions to homework assignment HD3 on 17. Sept.

5 Week of 21/9 -

Read chapters 8, 9 and 11 in B&B. Deliver solutions to homework assignment HD4 on 24. Sept.

6 Week of 28/9 -

Read chapters 11 and 12 in B&B. Deliver solutions to homework assignment HD5 on 1. Oct.

7 Week of 5/10 -

Read chapters 13, 14, 16.1 and 16.2 in B&B. Deliver solutions to homework assignment HD6 on 10. Oct.

8 Week of 12/10 -

Read chapters 16 and 18 as well as appendix C.6 in B&B. Deliver solutions to homework assignment HD7 on 17. Oct.

9 Week of 19/10 -

Prepare for the midterm exam which will be held on Oct. 21. It can count up to 30% of the final grade, but only to increase it. Students are encouraged to prepare one sheet of formulas and other info they find useful for solving the homework problems, but this is an open book exam, i.e. the text book and notes can be used, but no help from other people.

10 Week of 26/10 -

Read chapters 19 and 20 in B&B. Deliver solutions to homework assignment HD8 on 29. Oct.

11 Week of 2/11 -

Read chapters 21 and 22 in B&B. Deliver solutions to homework assignment HD9 on 5. Nov.

12 Week of 9/11 -

Read chapters 26 in B&B. Deliver solutions to homework assignment HD10 on 12. Nov.

At this point, the 6 ECTS course, EFN315G, ends, but EFN307G continues and gets two additional homework assignments (HD11 and HD12).

13 Week of 23/11 -

Read chapters 28 and 24 in B&B. Phase transitions and phonons in solids
Deliver solutions to homework assignment HD11 on 19. Nov.

14 Week of 23/11 -

Read chapters 24 and 29 in B&B. Phonons and ideal gas of electrons.
Deliver solutions to homework assignment HD12 on 26. Nov.