

Syllabus of the 20-12-417: Solid State Physics 2 Course

Winter 2013

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1. Energy Bands (a review)
2. Semiconductor Crystals
3. Fermi Surfaces and Metals
4. Superconductivity
5. Diamagnetism and Paramagnetism
6. Ferromagnetism and Antiferromagnetism
7. Dielectrics and Ferroelectrics
8. Plasmons, Polaritons, and Polarons

Reference Book:

Introduction to Solid State Physics, 8rd Edition, *Charles Kittel*, (John Wiley & Sons); 2005.

Links to the book:

<http://www.amazon.com/By-Charles-Kittel-Introduction-Physics/dp/B004HX9WPK>

<http://eu.wiley.com/WileyCDA/WileyTitle/productCd-EHEP000803.html>

Links to IUT Web Course:

<http://ivut.iut.ac.ir/login.php?course=881>