Solid State Courses at UMD

PHYS 731 Solid State Physics: Survey (3 credits) Offered every 3 semesters.
A variety of topics such as crystal structure, mechanical, thermal, electrical, and magnetic properties of solids, band structure, the Fermi surface, and superconductivity will be treated. Although the emphasis will be on the phenomena, the methods of quantum mechanics are freely employed in this description.

PHYS 732 Introduction to Solid State Physics II (3 credits) Offered every other year
Prerequisite: PHYS 731.
Second semester of survey course in condensed matter physics including topics in semiconductors, surface physics, magnetism and superconductivity.

PHYS 704 Statistical Mechanics (3 credits) Offered every other year
Prerequisites: PHYS 411; and PHYS 602.
A study of the determination of behavior of matter from microscopic models. Microcanonical, canonical, and grand canonical models. Applications of solid state physics and the study of gases.

Physics 798S Superconductivity: Offered every other year
Prerequisites: Graduate quantum mechanics. An undergraduate or (preferably) graduate course in solid-state or condensed matter physics will also be helpful.

An introduction to the phenomenology and theory of superconductivity. This is a 3 credit course. There are three hours of lecture per week.

The course rotation schedule can be found at:
www.physics.umd.edu/courses/700_Level_Courses.html?term=200301&crs=PHYS