PHYS 655: Physics of solids
Spring 2016

Instructor: Carlos A Trallero

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Office Hours: By request, and open door policy

Lectures: Mo, Wed and Fr 11:30 AM to 12:20 PM in Waters Hall 041.

Prerequisite: Introduction to Quantum Mechanics and Thermodynamics, programming in any language.


Syllabus: Will cover sections I through VI and part of Section VII. Time permitting, we will talk about magnetism and time dependent phenomena.

Grading Breakdown:
- Final Exam: 20%
- Best of two Midterm Exams: 20%
- Periodic Homework: 30%
- Programming Projects: 30%

Learning Outcomes:
- Statistical description of solids.
- Symmetries in solids.
- Description of a solid lattice and electronic states in solids.
- Characterization methods.
- Have hands-on experience with common mathematical and computational tools.
- Be capable of communicating information, scientific or otherwise, in both written and verbal form.
- Adequate preparation to succeed in graduate studies in physics or other technical disciplines, or in professional schools.
Statement Regarding Academic Honesty
Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reached via the following URL: www.k-state.edu/honor. A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

Statement Regarding Students with Disabilities
Students with disabilities who need classroom accommodations, access to technology, or information about emergency building/campus evacuation processes should contact the Student Access Center and/or their instructor. Services are available to students with a wide range of disabilities including, but not limited to, physical disabilities, medical conditions, learning disabilities, attention deficit disorder, depression, and anxiety. If you are a student enrolled in campus/online courses through the Manhattan or Olathe campuses, contact the Student Access Center at accesscenter@k-state.edu, 785-532-6441; for Salina campus, contact the Academic and Career Advising Center at acac@k-state.edu, 785-826-2649.

Statement Defining Expectations for Classroom Conduct
All student activities in the University, including this course, are governed by the Student Judicial Conduct Code as outlined in the Student Governing Association By Laws, Article V, Section 3, number 2. Students who engage in behavior that disrupts the learning environment may be asked to leave the class.

Academic Freedom Statement
Kansas State University is a community of students, faculty, and staff who work together to discover new knowledge, create new ideas, and share the results of their scholarly inquiry with the wider public. Although new ideas or research results may be controversial or challenge established views, the health and growth of any society requires frank intellectual exchange. Academic freedom protects this type of free exchange and is thus essential to any university's mission.