

# "COURSE SYLLABUS"

## PHY 496/467 – Introduction to Solid State Physics

**Credit Hours: 3**

**Spring 2008**

**Farrington Building, Room 209**

**F: 1:00 – 3:50 pm**

<b>Instructor:</b>	<b>Dr. Hui Fang</b>
<b>Office Location:</b>	<b>Farrington Building Room 204G and 305</b>
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<b>Office Hours:</b>	<b>by appointment</b>
<b>Course Description:</b>	This course introduces the concepts of crystal structure, crystal diffraction, reciprocal lattices, crystal binding, phonons, free electron Fermi gas, semi-conductors, energy bands, Fermi surfaces, point defects, and optical properties of crystals.
<b>Course Objective:</b>	The objective of this course is to explore the physics of solids using quantum methods.
<b>Required Textbook:</b>	Introduction to Solid State Physics, Kittel, Charles, 8 <sup>th</sup> edition, John Wiley & Sons, 2004
<b>Required Supplies:</b>	Pencil, pen, paper, a calculator, Scantron Form No. 882-E, eraser...
<b>Optional Texts:</b>	None
<b>Attendance Policy:</b>	<b>As per Federal regulations, attendance will be taken at every class by means of a sign-in sheet. The student will be required to sign the sheet. Failure to do so will result in the student being considered absent for the class. Federal regulations, and University policy, require that the instructor reports the last day of attendance any time that a student drops or withdraws from a class.</b>

Class will start and end at the assigned times. **No one will be permitted to leave the classroom after class has started.** Please see the university catalogue for institution expectation regarding class attendance.

No make-up exams will be given unless written justification from a physician is provided. Make-up exams will be given to students in compliance with the Religious Holy Days policy given below. Attendance is not used to calculate the final course grade.

- Assignments: About 10 problem sets will be given.
- Exams: Three in class examinations will be given during the semester. At the end of the semester, a comprehensive final examination will be given.
- Grading Plan: 30% for in class exams (10% each), 30% for final exam, and 40% for homework assignments.
- Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.
- Classroom Rules of Conduct: Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular telephones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.
- Visitors in the Classroom: Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not

present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether the visitor will be allowed to remain in the classroom.

**Course Outline:** The course will cover chapters 1 through 9 and chapter 11 in the text. This may be altered at the discretion of the instructor.

**American Disabilities Act:** SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Counseling Center and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until you register with the Counseling Center.

**Religious Holidays:** Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.