

**THE UNIVERSITY OF TEXAS AT EL PASO**  
**COLLEGE OF SCIENCE**  
**DEPARTMENT OF PHYSICS**

<b>Course #:</b>	PHYS 5371      CRN 21389
<b>Course title:</b>	Solid State Physics
<b>Credit hours:</b>	3.0
<b>Term:</b>	Spring 2022
<b>Course meetings &amp; location:</b>	TR 1:00 – 02:20 pm, Physical Science Bldg. 222A
<b>Instructor:</b>	<b>Dr. Ahmed El-Gendy</b>
<b>Office:</b>	PSCI 221 D
<b>Contact info</b>	Phone # : (915) 747 6382
	E-mail address: aelgendy@utep.edu
	Fax #: (915) 747 5447
	Emergency Contact: aelgendy@utep.edu
<b>Office hours</b>	Tue, Thu 11:00 – 12:00 pm
<b>Textbook</b>	<i>Introduction to solid state physics 8<sup>th</sup> ed., Charless Kittel</i>
<b>Grading policy</b>	2 mid-term exams: 40% (20% each) 1 final exam: 30% Homework: 20% In class attendance: 10%
<b>Course Activities/Assignments</b>	<b>Homework</b> It is essential that students become well versed in problem solving methods, which means developing the writing skills to set up a problem, including diagrams and mathematical manipulation to achieve the final answer. A numerical score will be assigned for each homework set based on graded and counted problems.

<p><b>Course Activities/Assignments</b></p>	<p>Feel free to form study groups with your classmates and seek help from your lecture instructor during his office hours as you attempt to solve the problems. Make sure that you understand the solutions and write them up yourself.</p> <p>The homework will be announced in advance in the lecture (approximately every week). Each will consist of few problems based on the course material.</p> <p><b>Exams</b> Exams will consist of problems very similar to the worked example problems in the text and the assigned homework problems. Exams will be strictly closed-book. You should bring with you a pocket calculator to work out the answers to numerical problems.</p> <p>No cell phones allowed in the exams!</p>
<p><b>Make-up Policy</b></p>	<p>An extension of the due date for the homework as well as the make-up of missing exams will be granted only in extraordinary circumstances.</p>
<p><b>Attendance Policy</b></p>	<p>Attendance is mandatory.</p>
<p><b>Academic Integrity Policy</b></p>	<p>Please see: <a href="http://sa.utep.edu/osccr/academic-integrity/">http://sa.utep.edu/osccr/academic-integrity/</a></p>
<p><b>Civility Statement</b></p>	<ul style="list-style-type: none"> <li>• Cell phones and pagers should be turned off during class time.</li> <li>• When absences occur, it is your responsibility to obtain handouts and notes from your peers. When possible you will complete the activities you have missed.</li> <li>• Academic integrity is to be practiced at all times.</li> </ul>
<p><b>Disability Statement</b></p>	<p>If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to <a href="mailto:cass@utep.edu">cass@utep.edu</a>, or visit their office located in UTEP Union East Building, Room 106. For additional information, please visit the CASS website at <a href="http://www.sa.utep.edu/cass">www.sa.utep.edu/cass</a>.</p> <p>The student is responsible for presenting to the instructor any accommodation letters and instructions.</p>
<p><b>Military Statement</b></p>	<p>If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructor at the beginning of the semester.</p>

<b>Course Schedule</b>	Chapter 1: Crystal Structure Chapter 3: Crystal binding and elastic constants Chapter 4 : Phonons I: Crystal Vibrations Chapter 5: Phonons II: Thermal Properties Chapter 6: Free Electron Fermi Gas Chapter 7: Energy Bands Chapter 18: Nanostructures
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