

## Syllabus for Spring 2017

<b>Course No.</b>	4582.502		<b>CRN</b>	001				
<b>Course Title</b>	Solid State Physical Chemistry						<b>Credit</b>	3
<b>Class Time</b>	Monday & Wednesday; 15:30-16:45		<b>Classroom</b>	302-808				
<b>Professor</b>	<b>Name</b>	Dae-Hyeong Kim		<b>Homepage</b>	http://c2e2.snu.ac.kr/index.php?vid=cafe 502			
	<b>E-mail</b>	<a href="mailto:dkim98@snu.ac.kr">dkim98@snu.ac.kr</a>		<b>Phone No.</b>	02-880-1634			
	<b>Office</b>	302-816		<b>Office Hours</b>	Tuesday 13:00-14:00			
<b>Course Objectives</b>	The objective of this course is to understand fundamentals of structures, properties, characterization methodologies and physics of inorganic materials and their applications in electronic, optoelectronic and energy harvesting devices.							
<b>Textbook and Bibliography</b>	Introduction to Solid State Physics (Charles Kittel) Solid State Electronic Devices (Ben G Streetman, Sanjay Kumar Benerjee)							
<b>Grading</b>	<b>Attendance</b>	<b>Assignments</b>	<b>Midterm</b>	<b>Final exam</b>	<b>Participation</b>	<b>Etc.</b>	<b>Total</b>	
	20%	10%	30%	30%	10%	0%	100%	
	Remarks							
<b>Lecture Plans</b>	<b>Week</b>	<b>Descriptions</b>						
	1	Introduction						
	2	Crystal Structures						
	3	Bonding						
	4	Excess Carriers in Semiconductors						
	5	Junctions						
	6	Diodes						
	7	Midterm Presentation						
	8	Midterm Presentation						
	9	Midterm Exam						
	10	Optoelectronic Devices (LEDs and PVs)						
	11	Electronic Devices (MOSFETs)						
	12	Integrated Circuits						
	13	Memory Devices						
	14	Final Exam						
15	Supplementary Lecture							
<b>Note for Students</b>	The course will be taught in English, and you can find lecture materials in the Open Courseware section on <a href="http://c2e2.snu.ac.kr">http://c2e2.snu.ac.kr</a> before or after the lecture.							