

Syllabus for 2015 Spring

Course No.	458.624		CRN	N/A				
Course Title	Energy Engineering						Credit	3
Class Time	Monday & Wednesday; 11:00-12:15		Classroom	302-720				
Professor	Name	Dae-Hyeong Kim		Homepage	http://cbe.snu.ac.kr/index.php?mid=LectureBoard			
	E-mail	dkim98@snu.ac.kr		Phone No.	02-880-1634			
	Office	302-816		Office Hours	Monday 13:00-14:00			
Course Objectives	The objective of this course is to understand fundamentals of materials physics, related engineering, and their applications in energy-related devices, such as light emitting diodes, photovoltaic devices, and energy storage devices (supercapacitors and batteries).							
Textbook and Bibliography	Solid State Electronic Devices (Ben G Streetman, Sanjay Kumar Benerjee)							
Grading	Attendance	Assignments	Midterm	Final exam	Participation	Etc.	Total	
	20%	10%	30%	30%	10%	0%	100%	
	Remarks							
Lecture Plans	Week	Descriptions						
	1	Introduction						
	2	Crystal Structures						
	3	Bonding						
	4	Excess Carriers in Semiconductors						
	5	Junctions						
	6	Light Emitting Devices						
	7	Light Emitting Devices						
	8	Midterm Presentation, Midterm Exam						
	9	Photovoltaic Devices						
	10	Photovoltaic Devices						
	11	Supercapacitors						
	12	Batteries						
	13	Batteries						
	14	Final Exam						
15	Supplementary Lecture							
Note for Students	The course will be taught in English.							