Syllabus

Course No.	445.206	Lecture No.	001	Course Title (Subtitle)	Introduction to Crystallography	Credit	3

Representative Instructor	Name	Chan Park (post : professor)	Homepage	http://advmaterials.snu.ac.kr/
	E-mail	pchan@snu.ac.kr	Phone No.	02-880-9324
	Interview Time/Place :	Mon Wed 09;00 ~ 11;00, 1300 ~ 1500 / room 33-219		
Attachment	(Korean)			
	(English)			
Prerequisite Course	Physics, Intro to Materials Science & Engineering			
*1.Purpose of Course	Perceive the basic of crystal structures based on crystallographic symmetry and understand correlations between the crystal structure and physical properties, lattice transformations, and the principle of X-ray diffraction.			
*2.Materials and Reference	W. B. Ott, "Crystallography" C. Hammond, "The Basics of Crystallography and Diffraction" B. D. Cullity and S. R. Stock, "Elements of X-ray Diffraction" A. D. Krawitz, "Introduction to Diffraction in Materials Science and Engineering" D. Sherwood & J. Cooper , "Crystals, X-rays and Proteins"			

*3.Evaluation Method	Attendance	Task	Medium	Final	Random Evaluation	Attitude	Other	Total
	5	30	30	30	0	5	0	0
	Remark of Others							

*4.Lecture Plan

Week 1 Crystal and crystallography
Week 2 Lattice
Week 3 Structural morphology
Week 4 Reciprocal lattice
Week 5 Symmetry
Week 6 14 Bravais lattices
Week 7 Point group
Week 8 Space group
Week 9 Space group & International Tables for Crystallography
Week 10 Crystal chemistry
Week 11 Fourier transform
Week 12 Diffraction by 1D obstacles
Week 13 Diffraction by 3D lattices
Week 14 Diffraction of real materials
Week 15 X-ray and X-ray diffraction

5.References to Course Registration	ETL will be used for communication and lecture notes