Flowchart of Each Subject for Learning in Materials Science and Engineering

Academic Year 2014

Achievement		I (grade 1)	II (grade 1)	III (grade 2)	IV (grade 2)	V (grade 3)	VI (grade 3)	VII (grade 4)	VIII (grade 4)
A		Calculus I Liner Algebra I Theory and Problems Calculus Mechanics and Wave Motion Inorganic Chemistry Introduction to Materials Science and Engineering Outlines of Materials Science and Engineering	Calculus II Liner Algebra II Exercises on Physics Physical Chemistry I Instrumental Methods of Chemical Analysis	Applied Mathematics Electromagetism Physical Chemistry II Basic Experiments in Science	Physical Chemistry III				
B	B1			Crystallography Materals Science and Engineering Principles I	Introduction to Solid State Engineering Materals Science and Engineering Principles II	Solid State Engineering I Exercise in Materials Science and Engineering II Functional Design and Processing of Materials	Solid State Engineering II		
	B2			Basic Principles and Calculations in Process Engineering Metals Processing I	Transport Phenomena I Powder Technology	Materials Processing I Transport Phenomena II Metals Processing II	Materials Processing II Exercise in Materials Science and Engineering III Powder Properties Metals Processing III Exercise in Materials Science and Engineering IV		
	B3			Introduction to Phase Transformation in Metals and Allovs II Material Mechanics I	Introduction to Phase Transformation in Metals and Allovs I Material Mechanics II	Material Forming and Engineering I Strength and Fracture of Materials Non-Ferrous Materials	Exercise in Materials Science and Engineering I Material Forming and Engineering II Structure and Design of Materials		
	B4					Experiments in Materials Science and Experiments in Materials Science and Experiments in Materials Science and Experiments in Materials Science and		Graduation Thesis Machining Practice	
C							Advanced Materials	Special Topics in Materials Science and Engineering	

D	D1							Preparation for a Member of Society		Engineering Ethics		Graduation Thesis	
	D2	Liberal Arts Education		Enhanced Liberal Arts									
		Health and Physical Education				Theory of Design for Producing on Materials							
	D3	Language Education →				English Communication							
	D4	Information Processing	→					Computer Programming and Exercises for Materials Science					
E	E1	Engineering Basic Seminar	Manufacturing Traning Programs	Creativity Exercise				All-Round Development Study					
		Creative Engineering Exercise 1		Creative Engineering Exercise 2				Creative Engineering Exercise 3					
		Special Lecture (Creative Engineering Lecture)											
	E2											Graduation Thesis	
	E3									Exercise for Materials Science and Engineering Presentation		Graduation Thesis	