

Curriculum

Basic Interdisciplinary Subjects in Science and Technology

■ – Compulsory Subjects ■ – Compulsory Elective Subjects ■ – Elective Subjects ■ – Free Elective Subjects

Classes	1st Year	2nd Year	3rd Year	4th Year
Basic Interdisciplinary Subjects in Science and Technology	English Communication I · II German I · II French I · II Chinese I · II Science of Physical Education I · II Basic Humanities I · II Basic Social Science I · II Basic Seminar I · II	English Communication III · IV German III · IV French III · IV Chinese III · IV Science of Physical Education III · IV Area Studies(Europe & America) I · II Area Studies(Asia) I · II	Literature Psychology Japanese Constitution International Relations International Economics Practical English I · II	

Curriculum

Specialized Education Department of Applied Chemistry

● Common Subjects with Division of Materials Science and Engineering ■ – Compulsory Subjects ■ – Compulsory Elective Subjects ■ – Elective Subjects ■ – Free Elective Subjects

Classes		1st Year	2nd Year	3rd Year	4th Year
Specialized Education	Basic Science and Technology Subjects	Calculus I · II Linear Algebra I · II Physics I · II Physics Exercise Experiments in Physics I · II Chemistry I · II Experiments in Chemistry I · II Biology Introduction of Science and Technology Computer Literacy Mathematics Review Course I · II Physics Review Course I · II Chemistry Review Course I · II English Review Course I · II	Earth Science I · II Experiments in Earth Science I · II Experiments in Biology Ethics for Engineers		
	Basic Applied Science	Introduction to Chemistry Applied Mathematics for Chemistry Electromagnetics	Fundamentals of Chemical Reaction ● Quantum Chemistry I ● Quantum Chemistry II Exercise of Quantum Chemistry		
	Synthetic Chemistry	Organic Chemistry I	Organic Chemistry II Exercise of Organic Chemistry Polymer Chemistry	Solid State Chemistry of Polymers ● Polymers ● Biochemistry Organic Chemistry for Human Life Colloid Chemistry Composite Material ●	
	Matter/ Materials Chemistry	Physical Chemistry I	Physical Chemistry II Exercise of Physical Chemistry Chemical Engineering Structure Science of Materials	Solid State Chemistry Metallic Materials ● Electronic Materials Semiconductor Electronics ● Fluid Science	
	Environmental Energy Materials	Inorganic Chemistry I	Inorganic Chemistry II Exercise of Inorganic Chemistry Chemical Crystallography Coordination Chemistry	Catalysis Chemistry Environmental Materials Surface Engineering ● Electrochemistry ● Energy Chemistry	
	Industrial Chemistry		Engineering Mechanics ● Analytical Chemistry ●	Design and Drawing ● Machine Elements ● Machine Design and Drawing ● Vacuum Engineering ● Instrumental Analysis	
	Common	Introductory Advanced Chemistry Safety Engineering ● Fundamentals of Chemical Experiments	Separation and Purification Engineering Experiments in Applied Chemistry I · II	Scientific Writing and Presentation Practical Intellectual Property Strategy ● Experiments in Applied Chemistry III · IV Seminar on Applied Chemistry	Graduation Research