

Department of Life Science and Applied Chemistry, Field of Soft Materials (Advanced)

Required Subject

Optional Subject

1st year
/1st semester

1st year
/ 2nd semester

2nd year
/ 1st semester

2nd year
/ 2nd semester

3rd year
/ 1st semester

3rd year
/ 2nd semester

4th year
/1st semester

4th year
/ 2nd semester

Basic study

Fundamental study required for the field of Soft Materials

Major study required for the field of Soft Materials

Sophisticated study as researcher and engineer

Chemistry

General Chemistry	Basic Organic Chemistry I
Chemical Bonds	Basic Inorganic Chemistry
Introduction to Life and Applied Chemistry	Fundamentals of Solid Chemistry

Synthesis

Basic Organic Chemistry II	Organic Synthesis I
Polymer Synthesis I	Polymer Synthesis II

Organic Synthesis II	Molecular Designs of Biomaterials
----------------------	-----------------------------------

Physical Property and Analysis

Physical Property of Polymer I	Physical Property of Polymer II
	Analytical Chemistry for Polymeric Materials

Environmental Friendly Materials	Molecular Designs of Functional Materials
Basis of Biomolecules	
Life Sciences	

Mathematics

Linear Algebra I	Linear Algebra II
Calculus I and Recitation	Calculus II and Recitation

Design and Regulation of Structure

Polymer Science I	Polymer Science II
	Polymer Science III

Polymeric Materials Science	Biomimetic Engineering
	Characterization of Biomaterials

Physics

Mechanics	Electricity and Magnetism
-----------	---------------------------

Phenomenon of Physical Chemistry

Polymer Physical Chemistry I
Polymer Physical Chemistry II

Computational Chemistry	Biomolecular Systems
-------------------------	----------------------

Graduation Thesis

Experiment and Research

Experiments in Physics	Experiments in Chemistry
------------------------	--------------------------

Soft Materials Chemistry I	Soft Materials Chemistry II
Soft Materials Laboratory I	Soft Materials Laboratory II
	Research Seminar

Soft Materials Exercise I	Soft Materials Exercise II
---------------------------	----------------------------

Languages, Culture, Ethics

Freshman Seminar	
Human Society	
Human Society	Human Society
Academic English I	Academic English II
English Seminar I	English Seminar II
Physical Education I	Physical Education II
Health and Physical Sciences A	Health and Physical Sciences B

Human Society	Industrial Study
Academic English III	Industrial Society
Earth Science	Human Society
	Academic English IV
	Applied Biosciences

Business Literacy	Business Literacy
Industrial Society	
Global English I	Global English II