

Department of Chemistry

1. Purpose of establishment and history

This chemistry department studies not only the basic science closely related to the development of modern culture but also the area of high-tech industry including medicines, environmental, and advanced materials. Therefore the purpose is to cultivate the future human resources of talented as academic and industrial chemistry researchers. Since after developing the undergraduate course in 1981, the master course was founded in 1988 and the doctoral course was in 1999.

2. Purpose of education

Department offers to select the various major subjects that are suitable for every student and are valuable for researches in society after graduation.

3. Department characteristic

Department offers four required subjects of Physical, Organic, Inorganic, and Analytical Chemistry that are essential in modern chemistry, and also Biochemistry, Organometallics, and Computational Chemistry. In these various fields, the lectures and researches are actively carried out and students are working in the related branches after graduation.

Information

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Professor Introduction

NAME	MAJOR	TELEPHONE	E-MAIL
Yoon, Byoung Jip	Physical chemistry, Statistical thermodynamics, Structure and properties of water	+82-33-640-2301	bjyoon@gwnu.ac.kr
Jeon, Sang Il	Physical chemistry, Polymer physical chemistry, Liquid chemistry	+82-33-640-2303	chemjeon@gwnu.ac.kr
Jung, Jin Seung	Inorganic chemistry, Solid chemistry, Bioinorganic chemistry	+82-33-640-2305	jjscm@gwnu.ac.kr
Choi, Suk Jung	Biochemistry, Bio-Medicine, Biotechnology, Analytical biochemistry	+82-33-640-2306	sjchoi@gwnu.ac.kr
Baeck, Kyoung Koo	Physical chemistry, Quantum chemistry, Computational chemistry	+82-33-640-2307	baeck@gwnu.ac.kr
Kim, Yong Joo	Organometallic chemistry, Instrumental analysis	+82-33-640-2308	yjkim@gwnu.ac.kr
Jeoung, Eunhee	Supramolecular chemistry, Interfacial chemistry, Organic chemistry	+82-33-640-2302	eunheej@gwnu.ac.kr
Park, Chung-Min	Organic Chemistry, Medicinal Chemistry, Biological Chemistry	+82-33-640-2304	parkc@gwnu.ac.kr

Curriculum

Course Code	Course Title	Credit
505.501	Advanced Physical Chemistry	3-0-0
505.502	Advanced Organic Chemistry	3-0-0
505.503	Advanced Inorganic Chemistry	3-0-0
505.504	Advanced Analytical Chemistry	3-0-0
505.601	Statistical Thermodynamics	3-0-0

505.602	Kinetics of Chemistry Reactions	3-0-0
505.603	Physical Chemistry of Macromolecules I	3-0-0
505.604	Physical Chemistry of Macromolecules II	3-0-0
505.605	Liquid and Solutions Chemistry	3-0-0
505.606	Introduction of Theoretical Chemistry	3-0-0
505.607	Physical Biochemistry	3-0-0
505.608	Surface and Interfacial Chemistry	3-0-0
505.609	Special Topics in Physical Chemistry I	3-0-0
505.610	Special Topics in Physical Chemistry II	3-0-0
505.611	Organometallic Chemistry I	3-0-0
505.612	Organometallic Chemistry II	3-0-0
505.613	Theoretical Organic Chemistry	3-0-0
505.614	Hetero Cyclic Chemistry	3-0-0
505.615	Synthetic Organic Chemistry	3-0-0
505.616	Chemistry of Natural Products	3-0-0
505.617	Organic Reaction Mechanism	3-0-0
505.618	Special Topics in Organic Chemistry I	3-0-0
505.619	Special Topics in Organic Chemistry II	3-0-0
505.620	Advanced Inorganic Synthesis	3-0-0
505.621	Coordination Compounds	3-0-0
505.622	Theoretical Inorganic Chemistry	3-0-0
505.623	Structural Inorganic Chemistry	3-0-0
505.624	Special Topics in Inorganic Chemistry I	3-0-0
505.625	Special Topics in Inorganic Chemistry II	3-0-0
505.626	Special Topics in Instrumental Analysis	3-0-0
505.627	Electro Analytical Chemistry	3-0-0
505.628	Chemical Separations	3-0-0
505.629	Trace Analysis	3-0-0
505.630	Special Topics in Analytical Chemistry I	3-0-0
505.631	Special Topics in Analytical Chemistry II	3-0-0
505.632	Seminar I	1-0-0
505.633	Seminar II	1-0-0
505.634	Advanced Biochemistry	3-0-0
505.638	Advanced Quantum Chemistry	3-0-0
505.639	Advanced Computational Chemistry	3-0-0

505.640	Advanced molecular Spectroscopy	3-0-0
505.641	Advanced Electrical Chemistry	3-0-0
505.642	Environmental Analytical Chemistry	3-0-0
505.643	Crystallography	3-0-0
505.644	Organosilicon Chemistry	3-0-0
505.645	Special Topics in Solid State Chemistry I	3-0-0
505.646	Special Topics in Solid State Chemistry II	3-0-0
505.647	Special Topics in Polymer Chemistry I	3-0-0
505.648	Special Topics in Polymer Chemistry II	3-0-0
505.649	Special Topics in Organometallic Chemistry	3-0-0
505.650	Seminar III	3-0-0
505.651	Seminar IV	3-0-0
505.652	Seminar V	3-0-0
505.653	Seminar VI	3-0-0
505.654	Special Research in Analytical Chemistry I	3-0-0
505.655	Special Research in Analytical Chemistry II	3-0-0
505.656	Special Research in Analytical Chemistry III	3-0-0
505.657	Special Research in Analytical Chemistry IV	3-0-0
505.658	Special Research in Organic Chemistry I	3-0-0
505.659	Special Research in Organic Chemistry II	3-0-0
505.660	Special Research in Organic Chemistry III	3-0-0
505.661	Special Research in Organic Chemistry IV	3-0-0
505.662	Special Research in Inorganic Chemistry I	3-0-0
505.663	Special Research in Inorganic Chemistry II	3-0-0
505.664	Special Research in Inorganic Chemistry III	3-0-0
505.665	Special Research in Inorganic Chemistry IV	3-0-0
505.666	Special Research in Physical Chemistry I	3-0-0
505.667	Special Research in Physical Chemistry II	3-0-0
505.668	Special Research in Physical Chemistry III	3-0-0
505.669	Special Research in Physical Chemistry IV	3-0-0
505.670	Modern Biotechnology	3-0-0
505.671	Chemistry of Biomaterials	3-0-0
505.672	Analytical Biochemistry	3-0-0
505.673	Special Research in Advanced Chemistry for Application I	3-0-0
505.674	Special Research in Advanced Chemistry for	3-0-0

	Application II	
505.675	Special Research in Advanced Chemistry for Application III	3-0-0
505.676	Special Research in Advanced Chemistry for Application IV	3-0-0
505.677	Special Topics in Material Modeling	3-0-0
505.678	Supramolecular Chemistry	3-0-0
505.700	Writing Research Paper in English	3-0-0
505.701	Special Research in Biochemistry I	3-0-0
505.702	Special Research in Biochemistry II	3-0-0
505.703	Special Research in Biochemistry III	3-0-0
505.704	Special Research in Biochemistry IV	3-0-0