Department of Biochemical Engineering

| Introduction |

The world is currently facing a host of challenges including climate change, depleted natural resources,alternative energy sources, and the need for green and sustainable solutions. In the demanding programs in Biochemical Engineering, students will obtain crucial and sought-after expertise and knowledge in the areas of technology, engineering in the life sciences, and sustainable solutions for energy and the environment.

Equipped with well-qualified faculties and supporting staff, the Department is in a strong position to provide rigorous engineering education to our students, and to improve our local and global communities through engineering education and research.

Research Highlights:

- Organic Medicinal Chemistry
- Functional Polymer Chemistry
- Bioenvironment and Energy
- Waste Treatment Engineering
- Enzyme and Protein Engineering
- Polymer Surface and Interface Chemistry

Programs:

- Master of Biochemical Engineering
- Doctor of Philosophy in Biochemical Engineering

Join our program and pave the way to a healthier and more efficient tomorrow.

| Information |

Campus	Gangneung Campus
Location	Engineering Hall 2 No.423 (N12-No.423)
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Fax	+82-33-640-2410
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| Professor Introduction |

Name	Research Interests	Phone	Email
Kang-Yeoun Jung	Organic Chemistry, Medicinal and Natural Product Chemistry	+82-33-640-2403	kyjung@kangwon.ac.kr
Sang-Yeon Shim	Functional Polymeric Materials, Polymer Engineering	+82-33-640-2404	syshim@kangwon.ac.kr
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Choong Jeon	Waste Material Engineering	+82-33-640-2405	metaljeon@kangwon.ac.kr
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Oh-chan Kwon	Membrane Separation, Metal Organic Frameworks, Carbon materials	+82-33-640-2407	ockwon@kangwon.ac.kr
Kwang-Ha Park Emeritus	Environmental Chemical Engineering, Environmental Analysis		khpark@kangwon.ac.kr
Han-Soo Kim Emeritus	Physical Chemistry(Thermody namics), Surface Chemistry		khs@kangwon.ac.kr

Curriculum

Course Code	Course Title	Credit
12327002	Differential and Integral Calculus	3-3-0-0
12327004	General Physics and Lab Ⅰ	3-2-2-0
14116520	Career Planning	1-1-0-0
12327005	Career Planning	3-2-2-0
65200001	Introduction to Advanced Materials and Biochemical Engineering	3-3-0-0
65230001	Chemical Biochemistry	3-3-0-0
65230002	Organic Chemistry	3-3-0-0
65230003	Physical Chemistry	3-3-0-0
65230007	Chemical Engineering Mathematics	3-3-0-0
65230008	Inorganic Chemistry	3-3-0-0
65230009	Introduction to Chemical Engineering	3-3-0-0
65230010	Computer Application in Chemical Engineers	3-3-0-0
65200002	Thermodynamics	3-3-0-0
65230011	Analysis in Biochemical Engineering	3-3-0-0
65230012	Inorganic Chemistry of Engineers	3-3-0-0
65230013	Organic ChemistryⅡ	3-3-0-0
65230014	Organic Chemistry Lab & Design	2-0-4-0
65230015	Biochemical & Molecular Engineering	3-3-0-0
65200003	Data-Inspired Design Project	3-2-2-0
65230004	Polymer Engineering	3-3-0-0
65230005	Chemical Reaction Engineering	3-3-0-0
65230016	Industrial and Medical Biotechnology	3-3-0-0
65230017	Organic Synthesis	3-3-0-0
65230018	Environmental Biotechnology	3-3-0-0
65230019	advanced chemical engineering thermodynamics	3-3-0-0
65230006	Water Treatment Engineering	3-3-0-0
65230020	Career Choice and Startup	1-1-0-0
65230021	Transport Phenomena	3-3-0-0

65230022	Applied Chemisty Lab&Design for Engineers	2-0-4-0
65230023	Instrumental Analysis of Organic Materials	3-3-0-0
65230024	Education in Chemical&Fiber Engineering	3-3-0-0
65230025	Education in Chemical Engineering	3-3-0-0
65230033	Writing and presentation of thesis for chemical and fiber engineers	2-2-0-0
65230034	Writing and presentation of thesis for chemical and engineers	2-2-0-0
65230026	Separation Process	3-3-0-0
65230027	Polymer Synthesis	3-3-0-0
65230028	Process Control	3-3-0-0
65230029	Industrial Energy Chemistry	3-3-0-0
65230030	Waste Material Engineering	3-3-0-0
65230031	Introduction of Reaction Mechanism	3-3-0-0
65230041	AI Applications for Chemical Process Analysis	3-3-0-0
65230033	Textbook Study&Teaching Method In Chemical&Fiber Engineering	3-3-0-0
65230034	Textbook Study&Teaching Method In Chemical Engineering	3-3-0-0
65230035	Chemical Process Design	3-3-0-0
65230036	Materials of Chemical Engineering	3-3-0-0
65230037	Industrial Organic Chemistry	3-3-0-0
65230038	Electrochemistry	3-3-0-0
65230039	Design of Research and Experiments	3-3-0-0
65230032	Biocatalysis Engineering	3-3-0-0
65230040	Practical Training	3-0-6-0