



About Us

The Department of BioEngineering was founded on the basis of pedagogical ideology in nurturing outstanding talents versed in biological and engineering related theories and knowledge; and in transferring biological technologies to industries. We emphasize on scientific reasoning, with engineering technology training on the periphery, to go in parallel with our ideology of quality education in general. We encourage pursuit of careers to better human living and promotion of harmonic relations between human and nature.

Biological Engineering is a conglomerated subject constituted by a myriad of scientific fields, such as biology, microbiology, biological chemistry, genetic engineering, chemical engineering, electronic engineering and material sciences. Its widespread applications reach areas in drugs, medical care, materials, new energy sources, environmental protection, biomedical engineering, biological information, food, and agriculture. By way of product research and development through biological technology, the production cost and the impact to environment can be reduced which in turn raise the quality of life.

Primary Research Areas

Current research directions of the faculties in the Department of BioEngineering include: screening and breeding of biological entities (including microorganisms, animal and plant cells, etc.), research in physiological and biochemical characteristics of biological entities, retrieval and purification technologies of biochemical products and proteins, food microbiology, genetic engineering technologies, applied immunology techniques, plant tissue culture, and environmental biological technologies. Programs involve in the research of engineering techniques include: biological energy source technology, fermentation control engineering, enzymatic engineering, enzyme immobilization, animal cells reactors, the production line and analysis of biological pilot plants, cross-field biomedical engineering research, biosensors, biological microelectronics, and bio-chips.

Core Courses

They include Microbiology, Biochemistry, Biochemical Engineering, Molecular Biology, Biomedical Engineering, Food Technology, and Plant Tissue Culture, etc. Hands-on experiments are emphasized in all courses.

Course Requirements:

- Requirements for a B.S. Degree: 136 credits of courses
- Requirements for a M.S. Degree: 38 credits of courses
- Requirements for a Ph.D. Degree: 36 credits of courses

Contact

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