

# Accreditation

National Accreditation :

Accredited A by BAN-PT (965/SK/BAN-PT/Akred/S/VIII/2015)

International Accreditation :

Accredited by ABET (Accreditation Board for Engineering and Technology)



Engineering  
Accreditation  
Commission

# Association

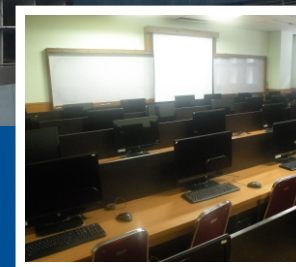
Indonesian Association of Chemical Engineering Education

# Research Laboratories

1. Laboratory of Process Safety and Energetic Electrochemistry
2. Laboratory of Design Methods and Process Control
3. Laboratory of Microbiology and Bioprocess Technology
4. Laboratory of Separation Process and Purification
5. Laboratory of Process Equipment
6. Laboratory of Product Engineering and Industrial Process
7. Laboratory of Chemical Reaction Engineering and Catalysis
8. Laboratory of Ceramic Technology
9. Laboratory of Polymer and Membrane Technology
10. Laboratory of Thermofluids and Utility Systems

# Profession and Fields of Work

- Design Engineer (Designing Chemical Processes, Plants, & Products)
- Operation Engineer (Operating Chemical Plants)
- Process Engineer (Developing & Evaluating Processes)
- Oil & Gas Industries
- Plastic Industries
- Fiber & Synthetic Rubber
- Pharmaceutical Industries
- Food Industries
- Bioprocess Industries
- Renewable Industries
- Researcher
- Academician
- Consultant



## Chemical Engineering Program Faculty of Industrial Technology Institut Teknologi Bandung

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# Introduction

Chemical Engineering is an engineering discipline, which studies the design and operation of commercial-scale chemical processes in safe, sustainable, and profitable manners. These processes encompass various processing steps utilizing chemical and biochemical reactions, and changes in physical and chemical properties of materials to convert their physical state, energy content, and/or chemical compositions, resulting in various commercially valuable products. Practical everyday life is virtually impossible without the use of products generated by various chemicals processing worldwide. These products include the materials we use for our clothing, the fuel we use to power our cars and motorcycles, various petrochemicals that are used for farmland fertilizers, plastics, explosives, and plenty more; various pharmaceutical products we consume to maintain our health.

The first introduction of Chemical Engineering Program is done in 1940. In 1941, the Department of Chemical Engineering in Institut Teknologi Bandung, which at that time was called Bandoeng Technische Hoogeschool, was officially opened and announced by Netherland Indies Government.

The basic purpose of Chemical Engineering establishment was to educate people who has capability to process agricultural resources.

The Chemical Engineering Program of Institut Teknologi Bandung is the oldest Chemical Engineering Program in Indonesia. In 1957, the department became part of Universitas Indonesia, under the Faculty of Engineering. It was in 1959 that the department started operating under Institut Teknologi Bandung, and since then it was located in ITB Ganesha Campus, Jl. Ganesha No. 10, Bandung, 40132. In 1996, the department moved to a new building inside the Ganesha Campus, called Labtek X Building, and even the very foods that we consume everyday to sustain ourselves.



# Program Educational Objectives

The education in our Program prepares our graduates to be significant contributors to their chosen career fields. Therefore, it is our aim that our graduates will be able to achieve the following objectives within 5 years of completion of their study:



1. Progress in their professions by practicing chemical engineering principles & methods in technical, managerial or other carrer tracks.
2. Be effective team members in their organization by applying & developing their communication, leadership, and team-working skills.
3. Having completed or pursuing advanced degrees in engineering, science, business or other relevant areas of study, professional certifications or training, or are actively engaged in professional development activities in his/her employment.

# Curriculum

The structure of curriculum in Chemical Engineering Undergraduate Program can be classified into two, which are the 1st year general courses under the faculty (Common Preparatory Level, TPB) consisting of 36 credits, and the main undergraduate curriculum consisting of 108 credits in 6 semesters. In total, the undergraduate program is designed for 4-year study with total of 144 course credits (approximately 18 credits per semester). The Undergraduate Program has two sub-programs, Chemical Technology (TK) and Bioprocess Technology (TB). Both subprograms have different structures of courses in the Bachelor Level starting in the fourth semester.



# Student Outcomes

The Student Outcomes for the Chemical Engineering Program ITB are listed below:

- a. an ability to apply math, science and engineering
- b. an ability to design and conduct experiments, analyze and interpret data
- c. an ability to design a system, component, or process to meet desired needs with realistic constraints
- d. an ability to function on multidisciplinary teams
- e. an ability to identify, formulate and solve engineering problems
- f. an understanding of professional and ethical responsibility
- g. an ability to communicate effectively
- h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context
- i. a recognition of the need for and an ability to engage in life-long learning
- j. a knowledge of contemporary issues
- k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice



# Facilities

- Library
- Seminar rooms
- PCs & internet connection
- Workshops (metal, glass, and wood)
- Multimedia facilities
- Student lounges
- Educational Laboratories
- Research Laboratories
- Pilot Laboratory
- Instrumentation & Analysis Laboratory
- Process Simulation Laboratory

