



School of Pharmacy Institut Teknologi Bandung



Clinical and Community Pharmacy
Study Program

*International
Class*



School of Pharmacy Institut Teknologi Bandung

Gedung Yusuf Panigoro (Labtek VII)
Jalan Ganesha 10, Bandung - Indonesia
Phone/Fax.: +62 22 2504842
www.fa.itb.ac.id - farmasi@fa.itb.ac.id

Clinical and Community Pharmacy

Clinical and Community Pharmacy Study Program at School of Pharmacy Institut Teknologi Bandung was officially opened in 2006. In an attempt to provide the knowledge and skill in pharmaceutical care the program was designed, for implementing the concept of clinical pharmacy and management of community pharmacy, which is in line with the healthy paradigm, to fulfill the need of health profession. This will contribute to the quality health service provided by three-party profession: the physician (medical care), pharmacist (pharmaceutical care), and nurse (nursing care). The program is further expected to instill the capability in managing various pharmaceutical products and medical devices in providing the primary quality service for the patients. Graduates of bachelor program in Clinical and Community Pharmacy are expected to be capable of performing pharmaceutical services (both of product-related and clinical) in accordance with the principles and ethics of pharmaceutical care, which will assure the dispensing of quality, effective, and safe medications, supported with comprehensive information to achieve their appropriate and rational use for the patient's well being. The graduates are also expected to actively involved in drug development at both preclinical and clinical levels.

Local and Global Recognition

Clinical and Community Pharmacy Study Program is accredited with the highest level "A" by LAMPTKES Indonesia (Indonesian Accreditation Agency for Higher Education in Health). Moreover this program has been recognized by the Board of Pharmacy of Malaysia since 2014 (<http://www.pharmacy.gov.my>). In 2015, the undergraduate programs was granted accreditation from a European accreditation agency, ASIIN (Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik), which is based in Germany.

Academic Staff Qualification

Teaching staffs at Clinical and Community Study Program, School of Pharmacy are mostly graduates of well-known universities from various countries in the world, such England, Germany, the Netherlands, Japan, France and Australia. Currently the School of Pharmacy has 11 Professors, with faculty members are mostly PhD holders.





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Structure of the 2013 Curriculum

Semester 1 [18 cr], Mathematics IB, Elementary Physics IB, Basic Chemistry IA, Introduction to Design and Engineering I, Introduction to Information Technology A, Scientific Writing in Indonesian, Introduction to Pharmacy & Health. Semester 2 [18 cr], Mathematics IIB, Elementary Physics IIB, Basic Chemistry IIA, Introduction to Design and Engineering II, Sports, English, Cell Biology and Its Application. Semester 3 [17 cr], Pharmaceutical Analytical Chemistry, Medical Microbiology, Basic Pharmaceutics, Basic Physical Pharmacy, Human Anatomy and Physiology I, Pharmaceutical Botany, Religion and Ethics. Semester 4 [18 cr], Environmental Pharmacy, Biostatistics, Organic Chemistry of Drug, Basics of Pharmaceutical Dosage Form Technology, Epidemiology and Public Health, Pathophysiology, Human Anatomy and Physiology II, Pancasila and Civic Education. Semester 5 [13 cr], Practicum of Drug Analysis, General Pharmacognosy, Basics of Hospital Pharmacy, Pharmacology and Toxicology I, Immunology, Instrumental Pharmaceutical Analysis. Semester 6 [15 cr], Medical Biochemistry, Phytotherapy, Practicum of Medical Biochemistry and Clinical Chemistry, Clinical Chemistry, Medical Biotechnology, Management and Entrepreneurship, Pharmacology and Toxicology II. Semester 7 [17 cr], Biopharmacy - Clinical Pharmacokinetics, Analytical Toxicology and Bioanalysis, Basic Pharmacotherapy, Basic Clinical Pharmacy, Final Project I, Pharmacology and Toxicology III, Practicum of Integrated Pharmacology. Semester 8 [16 cr], Final Project II, Seminar, Final Comprehensive Examination, Pharmacotherapy, Counseling and Drug Information, Medicinal Chemistry, Psychology and Communication Electives Courses [12 cr]: Subjects offered within* or outside the study program.

* Sport Physiology, Medical Nutrition Therapy, Pharmacological and Toxicological Methods, Parasitology and Virology, Hematology, Immunotherapy, Clinical Toxicology, Pharmacoeconomics, Evaluation of Drug Efficacy and Safety

Learning Outcomes

General Learning Outcomes: Students are able to,

- Discuss and present academic work orally supported with current technology;
- Write and disseminate scientific reports based on experiment results or literature studies;
- Work together as a team;
- Show good attitude in academic and social settings;
- Develop responsibility, open-mindedness, honesty, curiosity and perseverance;
- Show at least moderate proficiency in English.

Specific Learning Outcomes of the Undergraduate Programme in Clinical and Community Pharmacy: Students are able to,

- Describe drugs' mechanisms of action, adverse reaction, and interactions, taking into account the pathophysiology of the indicated conditions;
- Explain the principle of cost effective drug therapy and its assessment method;
- Describe the basic principle of pharmaceutical formulation, manufacturing and quality assessment;
- Demonstrate effective communication with health professionals, patients and community;



- Conduct counseling on drug use to patients and the community;
- Perform basic compounding of pharmaceutical preparation and quality assessment of pharmaceutical product;
- Design clinical trial for new drug/formulation development;
- Select the most rational medicine based on efficacy, safety and economic consideration;
- Organise systems for storage, preparation, dispensing and distribution of medicine;
- Organise monitoring of post-marketing drug effects.



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Facilities

A clinical pharmacy laboratory has been an important part of teaching and learning activity in the Clinical and Community program that simulates real-life pharmacy practice in clinical setting. Access to hospitals as well as community pharmacies for first-hand experiences in pharmacy practice is also available. Furthermore, in the near future the School of Pharmacy is to establish a Drug Information Center with students at final year as the core personnel assisted by teaching staffs as well as pharmacy practitioners working in community setting. Access to internet is freely available at all corners of School of Pharmacy, providing students and teaching staffs the ease of access to online sources and references.



Graduates Career Opportunities

As the orientation of pharmacy practice has expanded to patient care, besides production and quality control of drugs, pharmacists are in demand in variety of fields. They may engage in community or ambulatory settings, such as in clinics and at hospitals, fields which are highly in line with Clinical and Community Study Program. In addition, they may also have their career paths in research and product development, management, marketing, quality control, and education in universities as well as hospitals.





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Further Information

School of Pharmacy
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Indonesia

Phone/Fax.: +62 22 2504852
www.fa.itb.ac.id
farmasi@fa.itb.ac.id

Contact Person: Dr.rer.nat. Sophi Damayanti