



ENGINEERS LADKRABANG

CHEMICAL ENGINEERING INTERNATIONAL PROGRAM

INDUSTRIAL PRACTICES
PROJECT-BASED LEARNING

FACULTY OF ENGINEERING KMITL

KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG
BANGKOK, THAILAND

1, Soi Chalong Krung 1, Chalong Krung Road,
Ladkrabang Sub-district, Ladkrabang district,
Bangkok 10520

Website: <http://eneng.kmitl.ac.th/chemical-engineering/>
Email: eng-inter@kmitl.ac.th

Chemical Engineering

B.Eng. (Chemical Engineering)
a fourth-year international program

About KMITL

King Mongkut's Institute of Technology Ladkrabang (KMITL) has been established since 1960 and is considered one of pioneer science and technology institutions in Thailand. The name of the institute was derived from the name of King Rama IV. The royal grand crown seal has been graciously used as the emblem of the institute. As moved to a new era with 50 years' experience, KMITL has not only been very successful as an institute specializing in the field of science and technology in Thailand, but also produced a great exceptional number of professional "Practical Engineers" in diversified engineering territories. KMITL is moving forward with the new era with the philosophy "Education and Research in Science and Technology are the Foundation of the Development of the Nation" and KMITL is also ready to glow globally as internationalized activities and supports.

About Chemical Engineering Program (ChE)

Chemical Engineering program offers an engineering course, and cooperative education to integrate basic science and frontiers of engineering knowledge as well as industrial trainings to provide chemical engineers with professional expertise to serve the industries and academic sectors. In addition, the program proceeds research work and develop activities in the areas of Chemical Engineering and industrial collaborations. We work closely with industries to identify important problems that impact chemical processes and materials and solve them using our technical expertise. We engage motivated and talented students in the classroom and laboratory, imparting to them the spirit of our mission as we prepare them for future careers as effective, knowledgeable, and ethical leaders in corporate, professional, and academic communities.

Year 1 - Semester 1

- INTRODUCTION TO CALCULUS
- PHYSICS 1
- CHEMISTRY
- INTRODUCTION TO ENGINEERING PROGRAMMING
- ENGINEERING MATERIALS
- (ESU) ACADEMIC LISTENING AND SPEAKING
- INTERPRETATION AND ARGUMENTS

Year 1 - Semester 2

- PHYSICS 2
- ADVANCED CALCULUS
- ENGINEERING DRAWING
- ENGINEERING MECHANICS
- ORGANIC CHEMISTRY
- ORGANIC CHEMISTRY LABORATORY
- (ESU) ACADEMIC READING AND WRITING
- INNOVATIVE COMMUNICATION

Year 2 - Semester 1

- DIFFERENTIAL EQUATIONS AND LINEAR ALGEBRA
- PRINCIPLE CALCULATIONS IN CHEMICAL ENGINEERING THERMODYNAMICS
- INTRODUCTION TO CHEMICAL ENGINEERING AND MULTIDISCIPLINARY ENGINEERING
- FLUID DYNAMICS
- BIOCHEMISTRY
- CREATIVE THINKING

Year 2 - Semester 2

- DESIGN AND ANALYSIS OF EXPERIMENTS
- CHEMICAL ENGINEERING THERMODYNAMICS
- HEAT AND MASS TRANSFER
- ANALYTICAL INSTRUMENTATION AND ANALYSIS
- ANALYTICAL CHEMISTRY LABORATORY
- DESIGN METHODS FOR INNOVATIONS
- CRITICAL THINKING

Year 3 - Semester 1

- CHEMICAL PROCESS INSTRUMENTATION
- SEPARATION PROCESSES
- CHEMICAL ENGINEERING LABORATORY 1
- CHEMICAL ENGINEERING KINETICS AND REACTOR DESIGN
- WASTE TREATMENT AND POLLUTION CONTROL
- PROCESS OPERATIONS AND BUSINESS INFORMATION
- (GEN-ED ELECTIVES)

Year 3 - Semester 2

- CHEMICAL ENGINEERING LABORATORY 2
- PROCESS EQUIPMENT DESIGN
- PROCESS DYNAMICS AND CONTROL
- SAFETY IN CHEMICAL ENGINEERING
- ENGINEERING ECONOMICS AND DECISION TOOLS FOR BUSINESS
- PROCESS SIMULATORS IN CHEMICAL ENGINEERING
- PLANT VISIT
- PRE-PROJECT
- (GEN-ED ELECTIVES)

Year 3 - Summer

- INDUSTRIAL INTERNSHIP

Year 4 - Semester 1

- ALTERNATIVE STUDY

Year 4 - Semester 2

- CHEMICAL ENGINEERING PLANT DESIGN
- CHEMICAL ENGINEERING ELECTIVE COURSE
- FREE ELECTIVE COURSE
- FREE ELECTIVE COURSE
- LEADERSHIP AND PERSONAL DEVELOPMENT
- (GEN-ED ELECTIVES)

COLLABORATE WITH PARTNERS AROUND THE WORLD
Top 100 Universities



Partners include:

- The University of California, Davis
- Carnegie Mellon University
- Stanford University
- The University of South Florida
- Imperial College
- The University of Glasgow
- The University of Nottingham
- Beijing University
- Tokyo Institute of Technology
- Waseda University
- Osaka University
- Kyoto University
- Tohoku University
- The University of Sydney
- RMIT
- University of Queensland

Learning Outcomes

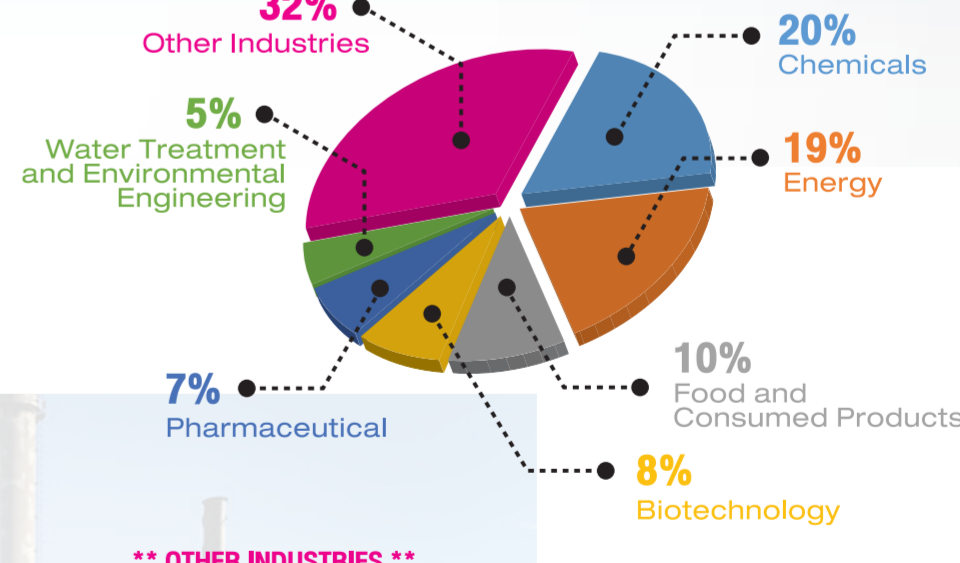
- Knowledge base for science and engineering
- Problem analysis
- Design
- Investigation
- Use of engineering tools
- Team work
- Communication skills
- Impact of engineering on society and the environment
- Ethics and equity
- Economics and project management
- Lifelong learning

Careers

- Chemical Engineer
- Project Engineer
- Process Technology Engineer
- Production Engineer
- Process Engineer
- Technical Service Engineer
- Design Engineer
- Purchasing Engineer
- Production Planning Engineer
- Research and Development Engineer
- Quality Assurance Engineer
- Utilities Engineer
- Safety Engineer
- Entrepreneur

WHY? CHEM.ENG.

Hiring trends for Chemical Engineering graduates going into industrial employment



Industry	Percentage
Other Industries	32%
Water Treatment and Environmental Engineering	5%
Pharmaceutical	7%
Chemicals	20%
Energy	19%
Food and Consumed Products	10%
Biotechnology	8%

**** OTHER INDUSTRIES ****

- Design and Construction
- Electronics
- Automotive
- Materials
- Pulp and Paper
- Public Utilities
- Aerospace
- Business Services
- Research and Testing
- Others

Contact

For enquiries about the application, please contact
Email: eng-inter@kmitl.ac.th

For enquiries about the program, please contact
Dr. Narisara Thongboonchoo
Email: chemeng-inter@kmitl.ac.th, Tel: +66-2-329-8260
Website: <http://eneng.kmitl.ac.th/chemical-engineering/>
Line: @mae9032w