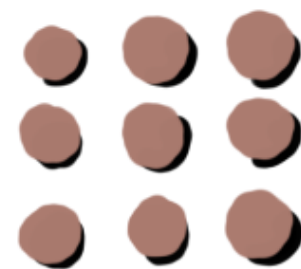


engineering



B.Eng. in Chemical Engineering

overview

This program combines science with frontiers of engineering education and industrial training to help provide chemical engineers with the academic knowledge as well as the professional expertise to serve both industry and academic sectors. 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 fields.

program structure

The first two years of the program include a foundation in mathematics, physics, and chemistry, as well as engineering fundamentals and introductory courses in chemical engineering.

In years 3 and 4, the program consists of core courses in chemical engineering, Chemical engineering electives and free electives.



In year 4, students may choose from one of three alternative study courses: chemical engineering projects, cooperative education or study abroad. An industrial internship must be completed in the summer of Year 3.

Total 147 credits

General Education 30 credits

Major courses 111 credits

Free electives 6 credits

tuition fee

2,750 USD/semester

(21,820 USD for the entire program)

** 90,000 baht/semester (720,000 baht for the entire program)

Chemical engineering

study plan

Semester 1

Semester 2

Year 1

Introduction to Calculus
Physics
Chemistry
Introduction to Engineering Programming
Engineering Materials
Interpretation and Arguments
(ESL) Academic Listening and Speaking (Audit)

Advanced Calculus
Physics 2
Engineering Drawing
Engineering Mechanics
Organic Chemistry
Organic Chemistry Laboratory
Innovative Communication
(ESL) Academic Reading and Writing (Audit)

Year 2

Differential Equations and Linear Algebra
Principle Calculations in Chemical Engineering
Thermodynamics
Introduction to Chemical Engineering and Multidisciplinary Engineering
Fluid Dynamics
Biochemistry
Critical Thinking

Design and Analysis of Experiments
Chemical Engineering Thermodynamics
Heat and Mass Transfer
Analytical Instrumentation and Analysis
Analytical Chemistry Laboratory
Design Methods for Innovations
Creative Thinking

Year 3

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)

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 Training

Year 4

Alternative Study (Project / Cooperative
Education / Study Abroad)

Chemical Engineering Plant Design
Chemical Engineering Elective Course
Free Elective Course
Free Elective Course
Leadership and Personal Development
(GEN-ED Electives)

