



THAYER SCHOOL OF
ENGINEERING
AT DARTMOUTH



Undergraduate Engineering Exchange Programs



Advance your engineering
degree while studying abroad



Chulalongkorn University
จุฬาลงกรณ์มหาวิทยาลัย



香港中文大學
The Chinese University of Hong Kong



Exchange Program Overview

Annual exchange of three undergraduate engineering students between Dartmouth and each of two partner schools for one term of study

Aimed at students in latter part of junior year from Dartmouth and beginning of senior year from partner schools



Current Options:

Chulalongkorn University, Bangkok, Thailand

Successful program in 2008-2011

Recently renewed for three more years

Chinese University of Hong Kong

Newly available for 2011/12, 2 students participating





Goals in selecting partners

- Exchange with regions that are
 - Culturally different
 - Experiencing rapid technology development/growth
 - Safe and interesting for students
- Exchange with schools that
 - Have a high quality program and student profile
 - Have native faculty teach engineering in English
 - Have good support for exchange students
 - Have curriculum that either complements or is broader than Thayer's



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Thailand



(c) Bangkok.com 2003

Chulalongkorn University of Bangkok



Across the globe to Thailand





Chulalongkorn University

("Chula")

- Oldest university in Thailand and generally considered to be the most prestigious
- Named after King Chulalongkorn (Rama V)
- Located on 500+ acre campus in center of Bangkok
- Over 19,000 undergraduates and about 10,000 graduate students
- 18 faculties, including Faculty of Engineering (est. 1913)



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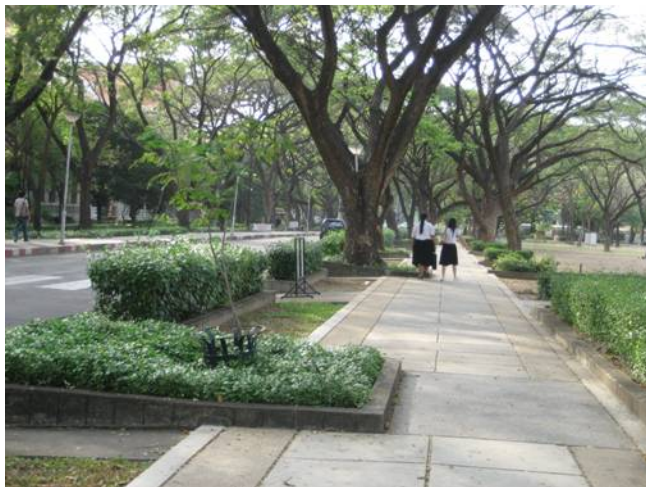
Chulalongkorn University





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Photos of Chula campus





Chula's International School of Engineering (ISE)

- English-language undergraduate engineering program
- Seeks to attract top engineering students in country, along with some foreign students
- Admissions requirements: TOEFL (>550); very competitive entrance exam, with emphasis on science and math; outstanding high school record
- First class admitted in 2005
- 200 students per class



Specializations at Chula's ISE

- Nanoengineering
 - Multidisciplinary major with emphasis on either Nano- or Bio-Nano- Engineering
- Information and Communication Engineering
 - Integration of Computer Engineering, Electrical Engineering, and Industrial Engineering
- Automotive Engineering
 - Automotive Design and Manufacturing, Mechanical Engineering
- Aerospace Engineering
 - Collaboration with Royal Thai Air Force and Thai airlines



Examples of courses that Dartmouth students might take at Chula

- 2310229 - Foundations of Biochemistry
- 2141263 - Dynamics & Vibration
- 2142321 - Internal Combustion Engines
- 2145221 - Intro. to Aircraft Design
- 2141375 - Measurement & Instrumentation
- 2143322 - Principles of Data Communication
- 2142353 - CAD/CAM/CAE
- 2141360 - Failure Mode and Effect Analysis



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Hong Kong



Chinese University of Hong Kong



CUHK Overview



- “a forward looking comprehensive research university with a global vision and a mission to combine tradition with modernity, and to bring together China and the West “
- >20,000 undergrad and post-grads, 3000 from outside of Hong Kong
- Ranked 21/100 in Asia for Engineering and IT¹
- College system with a focus on bilingualism and multiculturalism
- Eight faculties
 - Arts, Business Administration, Education, Engineering, Law, Medicine, Science, Social Science, and Graduate School
- Semester system: early September to late December + mid-January to mid-May

¹<http://www.topuniversities.com/university-rankings/asian-university-rankings/it-engineering> (Chula rank is #31/100)



CUHK Engineering and Exchange Programs

- Exchange Programs
 - First Hong Kong university to have an international exchange program (1965)
 - Has close to 110 exchange partners
 - Sends 300/receives 400 per year
 - Engineering exchange program began in 2004

- Engineering Program
 - Research and technology transfer as well as delivery of effective training for engineers.
 - Engineering departments:
 - Biomedical Engineering, Computer Engineering, Electronic Engineering, Information Engineering, Mechanical and Automation Engineering, and Systems Engineering and Engineering Management
 - Three years, 69-77 units of courses (average 3 units/course)



CUHK Exchange Academic Overview

- Course load
 - four to five 3-unit courses per semester (only four are transferrable for credit)
 - 3 units = 3 hours of lecture or 2 hours of lecture/1 hour of tutorial
 - Criteria for assessment may include any one or a combination of the following: attendance, class work, written work, laboratory work, field work, research papers, tests, examinations, and any other assessment.
- Course choices
 - 2011-12 offerings are available at http://rgsntl.rgs.cuhk.edu.hk/rws_prd_life/rws_appl/pco_dsp_menu.asp?yr=2012 - Click on multiple departments



CUHK course sampling

- EMB3240 Biosensors and Medical Instrumentation
- EMB3320 Biomedical Imaging
- EMB3330 Neuroengineering Fundamentals
- ELEG 3210 Analog and Integrated circuits
- ENGG 1500 Introduction to Energy and Environment
- ENGG 2030 Signals and Systems
- ENGG 2310 Principles of Communication Systems
- ENGG 2020 Digital Logic and Systems
- MAEG3060 Introduction to Robotics
- SEEM2440 Engineering Economics



Student Life

- Campus Overview
 - 134-hectare campus is largest and greenest in Hong Kong
 - Overlooks scenic Tolo Harbour
 - 7 libraries, art museums, music halls, a swimming pool, sports fields, tennis courts, squash courts, a water sports centre and gymnasium
- Housing
 - On-campus
 - double or triple-occupancy rooms in college managed hostels
 - Automatically assigned local roommates
- Health
 - free primary health care facilities and clinical services through The University Health Service at CUHK
 - Basic medication is free
 - Exchange students should arrange at their own cost, accidental and medical insurance during their stay in Hong Kong and for coverage during any Asian travel



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Photos of CUHK campus



Photos taken by Leung Nai Chung (Conan)



CUHK Contacts

Contacts:

- Thayer
 - Faculty: Benoit Cushman-Roisin
 - Administration: Carrie Fraser
- CUHK
 - Faculty: Professor Tan Lee
 - Administration:
 - Shally Fan, Associate Director of Academic Links
 - Mr. Louis Wong, Programme Officer



Application Process

- Dartmouth students apply by February 1 of their sophomore year for an exchange term in their junior year
 - Applications submitted through Dartmouth's Off-Campus Programs Office
 - Deadline is February 1, 2012 for participation in 2012-2013 academic year (for Dartmouth class of 2014)
- Participating students (4 for Chula, 4 for CUHK) will be selected at end of winter term



Enrollment Patterns

- Chula
 - Dartmouth winter term (an X-term) and spring term (an L-term) of your junior year (2012/13)
 - Corresponds to Chula's second 2012/13 semester (which runs from early January until early May)
 - Enroll in four or more engineering courses
 - Optional internship opportunities may be secured in Thailand for last month of spring term and possibly for summer
- CUHK
 - Dartmouth fall term OR Dartmouth winter term (an X-term) and spring term (an L-term) of your junior year (2012/13)
 - Corresponds to CUHK's first OR second 2012/13 semester
 - Enroll in four or more engineering courses
 - Internship a possibility if attending second semester



Courses and transfer credit

Dartmouth exchange students will take at least four courses

- four engineering courses in English
- + Chula: Thai language course, non-credit “survival Thai” 2hrs/wk for 5 wks
- + CUHK: any Chinese language course available to Int’l students

Students may transfer up to four course credits to Dartmouth

- In order to receive transfer credit in a Chula/CUHK course, a grade of at least C must be obtained and the course must have been approved beforehand
- Four courses can count toward A.B. degree requirements
- Two of those courses can be used for credit towards Engineering Sciences major; Up to two of the other courses could be used in satisfaction of Bachelor of Engineering degree requirements

Students need to obtain written prior approval for courses they wish to take before they enroll

- Courses should be selected and approval obtained before end of term prior to study



Financial Implications

- Student pays normal tuition at his/her home institution, no tuition paid to host institution
- Student responsible for transportation, room, board, books
 - Note: Total estimated cost for Dartmouth student at Chula is about \$3200 for 5 months, including room, board, books, local transportation; Roundtrip transportation to Thailand is an additional \$1850 (approx.)
 - Total estimated cost for Dartmouth student at CUHK is about \$6500 for 5 months, including room, board, books, local transportation; Roundtrip transportation to Hong Kong is an additional \$1600 (approx.)
- Since this is an official Dartmouth exchange program, any scholarship aid granted to the Dartmouth students will continue while they are on the exchange.



Visa, health insurance, etc.

- Each participating Dartmouth exchange student must have a passport that is valid for at least three months past the end of the exchange period
- The universities will provide documentation allowing the Dartmouth exchange students to receive the necessary visa
- The student is responsible for obtaining the necessary visa in a timely manner
- Dartmouth exchange students must be covered by adequate health care insurance (such as Dartmouth Student Health Insurance Plan) during the period of their stay abroad



Other details

- Dartmouth exchange students will be enrolled as full-time students and will be able to use all facilities normally available to local students and other foreign students
 - Library, computer facilities, sports facilities, etc.
- Housing:
 - CUHK exchange students will be housed in campus dormitories.
 - Chula students will stay with other international exchange students in a serviced apartment building near the Chula campus
- Other
 - Dartmouth Chula exchange students will wear the same university uniform worn by all students at Chula





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QUESTIONS?