UNDERGRADUATE ENGINEERING EXCHANGE PROGRAMS

ADVANCE YOUR ENGINEERING DEGREE WHILE STUDYING ABROAD

THAYER SCHOOL OF ENGINEERING AT DARTMOUTH
EXCHANGE PROGRAM OVERVIEW

CHULALONGKORN UNIVERSITY
BANGKOK, THAILAND

CHINESE UNIVERSITY OF HONG KONG

• 9 Dartmouth students exchange with 3 students from Chula, 3 from CUHK and 3 students from DTU

TECHNICAL UNIVERSITY OF DENMARK
LYNGBY, DENMARK

• Designed for 3rd year students from Dartmouth and 3rd or 4th year students from Chula, CUHK and DTU
WHY CHULA, CUHK & DTU?

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 complements or is broader than Thayer’s
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)
CHULA’S INTERNATIONAL SCHOOL OF ENGINEERING (ISE)

- English-language undergraduate engineering program
- First class admitted in 2005
- Very competitive entrance exam, with emphasis on science and math
- 200 students per class

SPECIALIZATIONS AT ISE

- Nanoengineering
- Information and Communication Engineering
- Automotive Engineering
- Aerospace Engineering
COURSES DARTMOUTH STUDENTS HAVE TAKEN AT CHULA

- Foundations of Biochemistry
- Science of Materials
- Aerodynamics
- Mechanical Solids
- Intro to Linear & Digital Circuits
- Computer-Aided Design
- Failure Mode and Effect Analysis
- Statistical Methods in Engineering
- Product Development Process
- Statistical Thermodynamics
CHINESE UNIVERSITY OF HONG KONG (CUHK)

- “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 postgrads, 3000 from outside of Hong Kong

- College system with a focus on bilingualism and multiculturalism

- Eight faculties including Faculty of Engineering
EXCHANGE PROGRAMS AT CUHK

• 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 DEPARTMENTS

• Biomedical Engineering
• Computer Engineering
• Electronic Engineering
• Information Engineering
• Mechanical and Automation Engineering
• Systems Engineering and Engineering Management
COURSES DARTMOUTH STUDENTS HAVE TAKEN AT CUHK

- Advanced Energy Technologies
- Control Systems
- Data Structures
- Discrete & Probabilistic Systems
- Dynamic Optimization & Applications
- Globalization and International Politics
- Introduction to Energy and Environment
- Introduction to Robotics
- Microcomputer Systems
- Microprocessors
- Principles of Communication
TECHNICAL UNIVERSITY OF DENMARK (DTU)

- Founded in 1829
- Renowned for its business-oriented approach and its focus on sustainability
- Approximately 10,000 students (including 2,000 international students)
- Main campus in Lyngby, 15 km south of Copenhagen
TECHNICAL UNIVERSITY OF DENMARK ENGINEERING PROGRAM

• Approx. 500 courses taught in English
• Dartmouth students can select from BSc or MSc courses (prerequisites must be met)
• Teacher/researcher to student ratio 1:4
• Emphasis on combining theory and practice via project and lab work

ENGINEERING DEPARTMENTS (w/courses in English)

• Civil
• Chemical
• Electrical
• Environmental
• Management
• Mechanical
• Photonics

• Also Applied Mathematics and Computer Science, Micro and Nanotechnology, Chemistry, Physics, Systems Biology and others
COURSES DARTMOUTH STUDENTS HAVE TAKEN AT DTU

- Applied Cryptography
- Chemical Unit Operations Laboratory
- Computational Discrete Math
- Computer Architecture & Engineering
- Functional Programming
- Intro to Chemical Reaction Engineering
- Intro to Computer Games Prototyping
- Intro to Mathematical Statistics
- Mathematical Software Programming
- Plasma Physics
- Programming in C++
- Resource Engineering
- Intro to Partial Differential Equations
- Intro to Machine Learning & Data Mining
ENROLLMENT

Chula
• Dartmouth winter term (an X-term) and spring term (an L-term)
• Corresponds to Chula’s second semester (early Jan until early May)

CUHK
• Dartmouth fall term
• Corresponds to CUHK’s first term (early Sept until late Dec)

DTU
• Dartmouth fall term (late summer departure)
• Corresponds to DTU’s autumn semester (late Aug until late Dec)
COURSES AND TRANSFER CREDIT

At least four courses

- Four engineering courses in English
- Option to take an additional non-transferrable course including languages
  - Chula: Thai language course, non-credit “survival Thai” 2hrs/wk for 5 wks
  - CUHK: any Chinese language course available to International students
  - DTU: a three-week intensive Danish language and cultural course and free Danish language course during the semester

Transfer up to four course credits to Dartmouth

- Need a grade of at least C and the course must have been approved beforehand (term prior to enrollment)
- Four courses toward A.B. degree requirements
- Two courses used for credit towards Engineering Sciences major
- Up to four courses can be used in satisfaction of Bachelor of Engineering degree requirements
FINANCIAL IMPLICATIONS

• No tuition paid to host institution

• Estimated Expenses:
  
  • Chula - $3600 for a semester, including room, board, books, local transportation; plus roundtrip transportation to Bangkok: approx. $1000-$1300*

  • CUHK - $3800 for a semester, including room, board, books, local transportation; plus round trip transportation to Hong Kong: approx. $1000-$1300*

  • DTU- $6300 for a semester, including room, board, books, local transportation; plus round trip transportation to Copenhagen: approx. $800-$1000*

  • Any scholarship aid granted by Dartmouth will continue while on exchange

* Source: Kayak.com, BOS to Hong Kong, Bangkok and Copenhagen Oct. 2016
VISA, HEALTH INSURANCE, ETC.

- Need passport valid for at least three months past the end of exchange
- Chula, CUHK and DTU will provide necessary documentation for visa
- Student responsible for obtaining necessary visa.
- Must be covered by health insurance (i.e. Dartmouth Student Health Insurance Plan)
PHOTOS FROM AROUND CHULA
CONTACTS & APPLICATION PROCESS

CONTACTS

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HOW TO APPLY

• Dartmouth students apply by February 1 of sophomore year for an exchange term in junior year

• Applications submitted through Dartmouth’s Off-Campus Programs Office

• Deadline – February 1, 2017 for 2017-2018 academic year (2019’s)

• Participating students selected by end of winter term