



# **Faculty of Engineering The Chinese University of Hong Kong**

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Associate Dean (Education)**

**12 August 2025**

# Presentation Outline

1. Introduction of Faculty of Engineering
2. Engineering Curriculum Introduction
3. Engineering Teaching Arrangements
4. ELITE Stream

Slides will be available on the Faculty of Engineering website:  
<https://www.erg.cuhk.edu.hk/erg/AcademicAdvising>



# Welcome to CUHK Engineering! Congratulations!





# Welcome to CUHK Engineering!

An aerial photograph of the CUHK Engineering campus. The image shows several large, modern buildings with glass facades and green roofs, surrounded by lush green trees. The buildings are arranged in a cluster, with some featuring colorful glass panels in shades of blue, orange, and green. The surrounding area is densely wooded, providing a natural backdrop for the urban structures.

Ho Sin-Hang  
Engineering  
Building (**SHB**)  
何善衡工程學大樓

William M.W. Mong  
Engineering Building  
(**ERB**), *not* (**MMW**)  
蒙民偉工程學大樓



# CUHK Engineering

## Six Academic Departments

- Biomedical Engineering (BME)
- Computer Science & Engineering (CSE)
- Electronic Engineering (EE)
- Information Engineering (IE)
- Mechanical & Automation Engineering (MAE)
- Systems Engineering & Engineering Management (SEEM)



# CUHK Engineering (Undergraduate Programmes)

## Ten Degree Programmes

- Artificial Intelligence: Systems and Technologies (AIST)
- Biomedical Engineering (BMEG)
- Computer Engineering (CENG)
- Computer Science (CSCI)
- Electronic Engineering (ELEG)
- Energy and Environmental Engineering (EEEN)
- Financial Technology (FTEC)
- Information Engineering (IERG)
- Mechanical & Automation Engineering (MAEG)
- Systems Engineering & Engineering Management (SEEM)

## Six Interdisciplinary Programmes

- Aerospace Science and Earth Informatics & X Double Major Programme (ASEI)
- Computational Data Science (CDAS)
- Interdisciplinary Data Analytics & X Double Major Programme (INDA)
- Learning Design and Technology (LDTE)
- Materials Science and Engineering (MASE)
- Mathematics and Information Engineering (MIEG)

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# 4-year Curriculum – Overview

Chinese		5 units
English		8 units
General Education		19 units
Digital Literacy and Computational Thinking		3 units
Physical Education		2 units
Understanding China		1 unit
Hong Kong in the Wider Constitutional Order		1 unit
# Except MASE, MIEG	Major#	75 units
Free Electives: Remaining Units		

Total: 123 units



# 4-year Curriculum – Major Requirements

**Year 4**

Capstone  
Project

Major  
Electives

**Year 3**

Major Electives

**Year 2**

Major Foundation

**Year 1**

Faculty  
Package

Faculty  
Foundation

**75 units**

(Except  
MASE, MIEG  
Programmes)

# Major Requirements – Faculty Package & Faculty Foundation Courses

Faculty Package (Except CDAS, MASE, MIEG Programmes)	Units
<b>1) Faculty Package:</b> <ul style="list-style-type: none"> <li>•ENGG1110 Problem Solving by Programming (3 units)</li> <li>•ENGG1111 AI Literacy Workshop (0 unit)</li> <li>•ENGG1120 Linear Algebra for Engineers (3 units)</li> <li>•ENGG1125 Single Variable Calculus for Engineers (3 units)</li> </ul>	Yr. 1 courses 9

Foundation Courses (Except CDAS, MASE, MIEG Programmes)	Units
<b>2) Foundation Courses:</b> <p>Science Courses (PHYS, CHEM, LSCI courses)</p> <p>Engineering Mathematics (ENGG courses)</p> <p>Engineering Major Related Courses (FTEC, MAEG, SEEM courses)</p>	Minimum 11



# Faculty Foundation Courses Selection & Recommended Study Pattern

- Each programme have its own requirements on the Faculty Foundation courses
- Students should **consult their respective major departments** for course selection recommendation

The background of the slide is a faded image of the CUHK entrance gate. The gate is a large, white, modern structure with the university's name in Chinese and English. The Chinese characters '香港中文大學' are at the top, and 'THE CHINESE UNIVERSITY OF HONG KONG' is below them. The gate is set against a backdrop of trees and a clear sky.

香港中文大學  
THE CHINESE UNIVERSITY OF HONG KONG

# Course Load

- A student shall take **at least 9 units** of courses and **no more than 18 units** of courses in any term within the normative study period except when s/he is on first or extended academic probation
- A student shall take no more than 6 units of courses in each summer session, and **no student will be allowed to take more than 39 units in an academic year**



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# Engineering Teaching Arrangements

1. All students in Faculty of Engineering (except CDAS, MIEG) have to take **ENGG1125 (Single Variable Calculus for Engineering)**
2. Some major programmes requires **PHYS1110 (Engineering Physics)** as their foundation courses
3. Mathematics Placement Test for **ENGG1125**
4. Physics Placement Test for **PHYS1110/1003**
5. Teaching Medium



# Mathematics Placement Test

- The test will be arranged on:
  - Local Students  
**14 August 2025 (This Thursday) at Lecture Theatre 1, Yasumoto International Academic Park**
  - Mainland and International Students  
**1 September 2025 (Monday) (Venue is to be confirmed)**
- Results are used to determine if one is required to take ENGG1040 (Foundations in Engineering Mathematics)

# Mathematics Placement Test

- JUPAS students **without HKDSE M1 or M2** are **required to take ENGG1040** before they can take ENGG1125
- JUPAS admittees with the following HKDSE results **do not need to take ENGG1040**:
  - Level 5\*\* in M1; or
  - Level 5\* or above in M2.
- Non-JUPAS admittees with the following public examination results **do not need to take ENGG1040**:
  - Grade 6 or above in IB Mathematics Analysis and Approaches (HL); or
  - Grade 7 in IB Mathematics Applications and Interpretation (HL); or
  - Grade A\* in GCE-AL Further Mathematics

These students **WILL NOT BE INVITED** for the test



# Mathematics Placement Test

- Other students except those specified on the previous slide are **required to attend the Mathematics Placement Test**.
- Students who **were absent from the test** or **failed** the test **must take ENGG1040 in Term 1, 2025-26** before they can take ENGG1125 in Term 2, 2025-26.
- Any student who **passed the test** can **take ENGG1125 alone** in Term 1, 2025-26

Test Invitation and scope  
will be sent to you by email

# Mathematics Placement Test

- For Mainland and International students, ENGG1040 will be pre-assigned to you first.
- For students who passed the test, ENGG1125 will be added and ENGG1040 will be dropped for you in Term 1, 2025-26.

The background of the slide is a faded image of the CUHK entrance gate. The gate is a large, modern structure with a wide, flat top. On the top surface, the university's name is inscribed in large, raised Chinese characters '香港中文大學' and below them, in English, 'THE CHINESE UNIVERSITY OF HONG KONG'. To the left of the gate, there is a tall, stylized sculpture made of several vertical and horizontal bars. The gate is set against a backdrop of trees and a clear sky.

香港中文大學  
THE CHINESE UNIVERSITY OF HONG KONG

# Physics Placement Test

- Students **admitted WITHOUT HKDSE results**
  - The test will be arranged **online** on **18 August 2025 (Next Monday)**
  - **Failure** in or **absence** from the test will be pre-assigned to **PHYS1003**
  - **Students attaining a Pass** in the test will be pre-assigned to **PHYS1110**

Before release of test results, students will be **pre-assigned to PHYS1110 first**

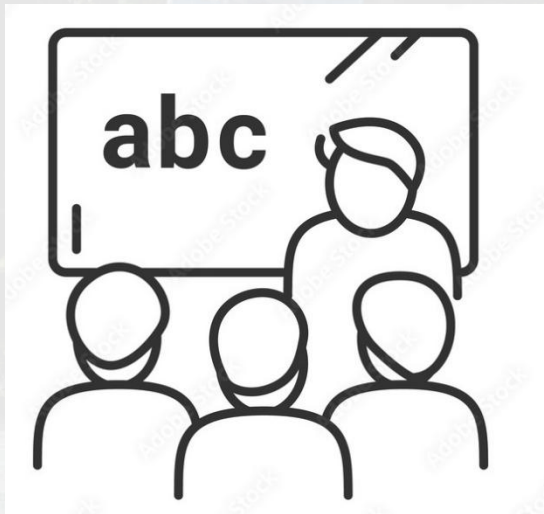


# Physics Placement Test

- Students **admitted WITH HKDSE results (regardless of admission channel)**
  - PHYS courses will be pre-assigned according to the HKDSE Mathematics and Physics results
  - **PHYS1110** will be preassigned for students with:
    - i. **Lv. 4** or above in **Mathematics**; and
    - ii. **Lv. 4** or above in **Physics**
  - **PHYS1003** will be pre-assigned for the **rest**

# Teaching Medium

- All courses offered by the Faculty of Engineering will be taught in **English** (Lectures & Tutorials)



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The background of the slide is a faded, low-angle photograph of the Chinese University of Hong Kong (CUHK) entrance. The image shows a large, modern stone archway with the university's name in Chinese characters and English. The archway is set against a backdrop of lush green trees and a clear sky. The overall tone is bright and academic.

# **Engineering Leadership, Innovation, Technology and Entrepreneurship (ELITE) Stream**

# The ELITE Stream

- Aims

- To nurture **outstanding** engineering students
- To develop their **potentials** through
  - additional challenging coursework and
  - rewarding extra curricular activities
- Open to **all majors** under the Faculty

# Entrance Requirements for Freshmen

- To join the Stream in the **first term** of study:
  - **HKDSE** entrants who have achieved in HKDSE Level
    - **5\* or above** in **Mathematics** AND **another one Science** subject (Mathematics Extended Module I/II could be counted as one subject) AND **one elective subject**
    - PLUS **Level 4 or above** in **any two of the remaining core subjects**; OR
  - Any **entrants admitted with renewable tuition scholarship**
- Those with **exceptional achievements** other than the above admission results are also encouraged to apply and the application will be considered based on individual merits



# Entrance Requirements for Continuing Students\*

- Full-time students who attained a **cumulative GPA of 3.50 or above**; AND
- Have at least **2 terms from the expected graduation term**
- Those with exceptional performance or contributions to the Faculty of Engineering or their Major Department may also be considered based on individual merits

*\* Those who have completed at least one term of study at CUHK*

# ELITE Stream Requirements

- To be awarded the ELITE Stream qualification, students must fulfill all of the followings:
  - **Complete** the required Graduation Thesis **ESTR 4998 and 4999** (6 unites in total)
  - **Complete** at least **15 units of recognized elective courses**
    - Among the 15 units, **up to 9 units** can be used to fulfill **both** the major programme requirements **and** the elective requirements of the ELITE Stream
  - Attain both **cumulative major GPA and overall GPA of 3.3** or above at the time of graduation

# ELITE Stream Requirements

- Students are required to complete a minimum of **21 units** of courses as follows:

		Units
1.	Required Courses*: ESTR4998, 4999	6*
2.	Elective Courses: a) 12 units of ESTR courses of which at most 6 units of courses at 1000-2000 level and at least 6 units of courses at 3000-4000 level b) 3 units of AIST/BMEG/CENG/CSCI/EEEN/ELEG/ENGG/ IERG/ MAEG/SEEM research postgraduate courses at 5000 level	15
	Total:	21

\*Graduation Thesis I & II shall replace the Final Year Project I & II to fulfill the graduation requirements.



# Retention Policy

- Students must fulfil the following requirements to remain in the ELITE Stream:
  - **CGPA Requirement**
    - Maintain a **CGPA of at least 3.3** after enrolling into the ELITE Stream
  - **ESTR Course Requirement**
    - Take at least **two ESTR or Engineering 5000-level courses** per academic year (each of ESTR 4998 and ESTR 4999 is counted as one ESTR course)
  - **Activity Requirement**
    - Participate in at least **one recognized activity per term**
- Retention is reviewed at the end of each academic year
  - **Students having their ELITE Stream status revoked cannot rejoin the ELITE Stream again.**

# ELITE Stream Privileges

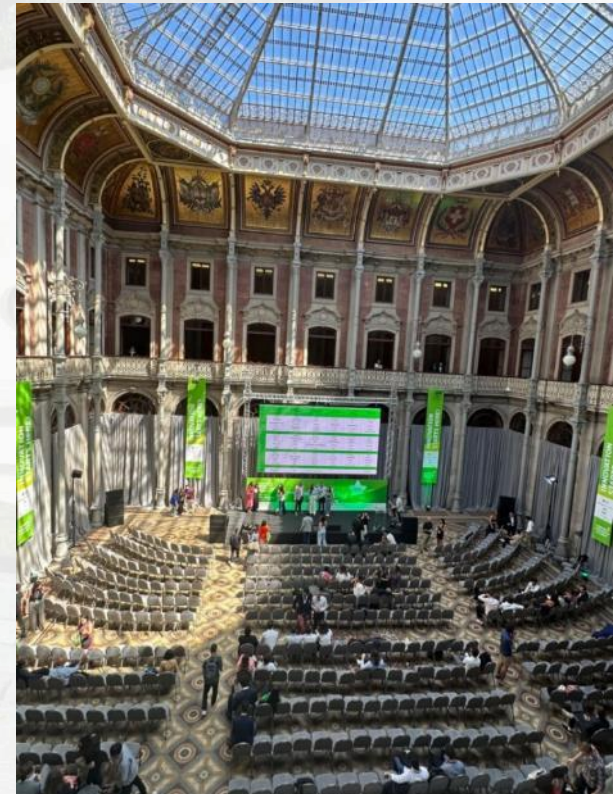
- Exclusive **scholarships** for ELITE Stream students
  - Averaged over **HK\$1.2M** awarded to ELITE Stream Students **each year**.
- Exclusive **exchange / internship** opportunities
- Rewarding **extra-curricular activities**





# ELITE Stream Privileges

- **European Innovation Academy (EIA)**
  - The world's largest 3-week study abroad entrepreneurship program
  - Venue: Porto, Portugal
  - Date: July 20 - August 8, 2025
  - Registration fee: 1799EUR for each student (subsidized by ELITE Stream)
  - Accommodation: 995EUR for each student (subsidized by ELITE Stream)





# ELITE Stream Privileges

- Award of the ELITE Stream will be officially **recorded on your academic transcript**
  - *This is the one and only stream in the University that is officially recognized in the transcript!*
- An official **Certificate** issued by the Faculty:



# ELITE Stream Graduate Destinations

- Further Studies:



Caltech



ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE



NANYANG  
TECHNOLOGICAL  
UNIVERSITY  
SINGAPORE

**ETH** zürich





# ELITE Stream Graduate Destinations

- Careers in the Industry:



Goldman  
Sachs



香港中文大學  
Tencent 腾讯





# For More Information

- Details of the ELITE Stream, including application procedure, can be found at:  
<https://www.erg.cuhk.edu.hk/erg/Elite>



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# Stream / Course Administration

- To apply to the ELITE Stream, please go to the application website:

<https://mycuhk.sharepoint.com/sites/Faculty.ERG/EliteStream/Lists/Application/AllItems.aspx>

Login ID: CUHK email (SID@link.cuhk.edu.hk)

Password: OnePass (CWEM) password



# Stream / Course Administration

- Students can download the **Course Registration Form** from the ELITE Stream Website for course registration:

<https://www.erg.cuhk.edu.hk/erg/Elite/Forms>





# Enquiries

For any enquiries on the ELITE Stream, please send email to

[enf\\_elite@cuhk.edu.hk](mailto:enf_elite@cuhk.edu.hk)

# Enjoy your study in Engineering

