



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

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Associate Dean (Education)**

12 August 2021



4-year Curriculum

Guidebook

The Guidebook can be found at:

https://www.erg.cuhk.edu.hk/erg/sites/default/files/GuideBook_2021.pdf



4-year Curriculum – Overview

Free Electives: Remaining Units		
IT*		1 unit
Physical Education		2 units
Chinese >		6 units
English >		9 units
General Education		21 units
Major #		75 units (not for MIEG)

Total : 123 Units

4-year Curriculum – Major Requirements

Year 4

Capstone Project

Major Electives

Year 3

Major Electives

Year 2

Major Foundation

Year 1
(Common)

Faculty Package

Faculty Foundation

75 units
(Except MIEG Programme)

Major Requirements – Faculty Package & Faculty Foundation Courses

Faculty Package	Units
1) Faculty Package: <ul style="list-style-type: none">•ENGG1110 Problem Solving by Programming (3 units)•ENGG1120 Linear Algebra for Engineers (3 units)•ENGG1130 Multivariable Calculus for Engineers (3 units)	Yr. 1 courses 9

Major Requirements – Faculty Package & Faculty Foundation Courses

Foundation Courses	Units
<p>2) Foundation Courses:</p> <ul style="list-style-type: none"> • AIST1110 Introduction to Computing using Python (3 units) • CHEM1280 Introduction to Organic Chemistry and Biomolecules (3 units) • CHEM1380 Basic Chemistry for Engineers (3 units) • CSCI1120 Introduction to Computing Using C++ (3 units) • CSCI1130 Introduction to Computing Using Java (3 units) • ELEG2700 Introduction to Electronic System Design (3 units) • ENGG1310 Engineering Physics: Electromagnetics, Optics and Modern Physics (3 units) • ENGG2440 Discrete Mathematics for Engineers (3 units) • ENGG2720 Complex Variables for Engineers (2 units) • ENGG2740 Differential Equations for Engineers (2 units) • ENGG2760 Probability for Engineers (2 units) • ENGG2780 Statistics for Engineers (2 units) • FTEC2101 Optimization Methods (3 units) • IERG2060 Basic Analog and Digital Circuits (3 units) • LSCI1001 Basic Concepts in Biological Sciences (3 units) • LSCI1003 Life Sciences for Engineers (3 units) • MAEG1020 Computational Design and Fabrication (3 units) • MATH1510 Calculus for Engineers (3 units) • PHYS1003 General Physics for Engineers (3 units) • PHYS1110 Engineering Physics: Mechanics and Thermodynamics (3 units) • SEEM2440 Engineering Economics (3 units) • SEEM2460 Introduction to Data Science (3 units) 	<p>Minimum 11</p>

Faculty Foundation Courses Selection & Recommended Study Pattern

- Students from **Broad-based** Engineering can refer to Pg. 12-13 of the Guidebook.
- Students from **non Broad-based** Engineering programmes can consult their respective departments

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

Note: Approval has been sought for broad-based engineering students to take 19 units per term during the first year.

- 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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Highlights of Engineering Policies

Engineering Teaching Arrangements

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1. Mathematics Placement Test
2. Physics Placement Test
3. Teaching Medium

Mathematics Placement Test

- The test was arranged on 17 August 2021 (Tuesday)
- Results are used to determine if one is required to take MATH1020
- Students who **were absent from the test** or **failed** the test **must take both MATH1020 and MATH1510** in Term 1, 2021-22
- Any student who passed the test can take MATH1510 alone

Physics Placement Test

- Students **admitted WITHOUT HKDSE results**
 - Attend the Physics Placement Test
 - ☐ Will be scheduled for late August, exact schedule will be sent through email
 - **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**

Physics Placement Test

- Before release of test results, students will be **pre-assigned to PHYS1110 first**
- Students who need to take the test should have received the email on 23 August 2021

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 or Lv. 5 or above in Combined Science (with Physics component)
 - PHYS1003 will be pre-assigned for the rest

Teaching Medium

- All courses offered by the Faculty of Engineering will be taught in **English**

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Language Exemption

Language Exemption by Attainment

- Students have to complete University Core Requirements including Chinese and English language courses in order to graduate
- Students who have already obtained a certain qualifications specified by the University **prior to their study at CUHK** shall **apply for exemption on their own in their first term of study.**
- Please visit Registration and Examinations Section website

<http://www.res.cuhk.edu.hk/en-gb/undergraduate-students/information-for-year-1-students/information-on-university-core-requirements-and-exemption/university-core-course-exemption-by-attainment>



- **Application Period: From 6 September to 31 December 2021**
- When exemption from a particular course is granted, students can **only be exempted from the course but not the units.**

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ENGG1000 IT Foundation Course Exemption

Your Curriculum

Component	Subject	Unit
University Core	Chinese Language	6
	English Language	9
	General Education	21
	Information Technology	1
	Physical Education	2
Major	Faculty Package	
	Major Courses	

Exemption from Information Technology Foundation Course

Information Technology

ENGG1000

IT Foundation

exempt
豁免

Engineering Major Programme Requirements

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Exemption from ENGG1000

- All newly admitted students will be exempted from ENGG1000 when they have successfully *fulfilled* the major programme requirements of *any* engineering programme.

ENGG1003 & 1004

- Two 3-unit courses with pilot run in 2021-22
- Introductory level course on digital literacy and its applications
- **ENGG1003** – Techniques for solving problem with data (e.g., automation, textual analysis, data visualization, etc.)
- **ENGG1004** – Techniques for solving problems with quantitative data (e.g., automation, curve fitting, classification, clustering, etc.)
- Can consider taking either course as free electives to fulfill the unit requirements



Enjoy your study in Engineering