

BEng(CompSc)

What is Computer Science?

Computer science is not just programming and study of computers, but rather is about problem solving – the study of algorithms and information representation to make productive use of computing technologies. Computer science is a young but fast growing discipline. Its importance is evident in the profound impact that the use of computers has on our lives. Computer science education is now as indispensable as any of the traditional programmes in any established university.

Bachelor of Engineering (Computer Science)

The BEng(CompSc) programme is a programme that offers a solid education in the fundamental and essential areas of computing. It is a timely and practical curriculum that is essential for aspiring students and future IT professionals. On completion of this curriculum, students will be well-equipped with both basic and advanced knowledge in computer science, which aims to better prepare students to launch their career in the IT industry and/or to pursue postgraduate studies in this area.

Highlights of the Programme

Flexibility – Students can select electives from a wide variety of courses and use them as credits for a second major, a minor or the double-degree programme.

Accreditation – The programme is accredited by the Hong Kong Institution of Engineers (HKIE).

Internship – Students normally spend eight to twelve weeks of paid work experience and professional development in the industry during the summer after the third year, or they can join the Integrated Study-Work programme to get one-year work experience.

Final year project – Students may choose amongst research-based projects, software development projects, and industry-based projects as their Capstone Experience.

Go on exchange – Students may join the Exchange Programme to study in a foreign university for one semester or year.

Research opportunity – Outstanding students are having the opportunities to undertake research under the University Research Fellowship Programme.

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Programme Structure

To obtain the BEng(CompSc) degree, you need to pass at least 240 credits of courses in the following categories:

Component	Types	No. of Courses	Credits
University (UG5) Requirements	University Common Core courses	6	36
	English courses	2	12
	Chinese course	1	6
Specialization – Computer Science	General Engineering courses	6	36
	CS Introductory courses	4	24
	CS Advanced courses	6	36
	CS Elective courses	5	30
	Capstone Experience	1	12
	Experiential Learning	1	6
Electives	Elective courses	7	42

General Engineering courses

To prepare students with necessary background to pursue any of the majors in the engineering programme; including mathematics, physics, computer programming, and general engineering courses.

CS Introductory courses

Introduction to Data Structures and Algorithms
Computer Organization
Discrete Mathematics
Programming Technologies and Tools

CS Advanced courses

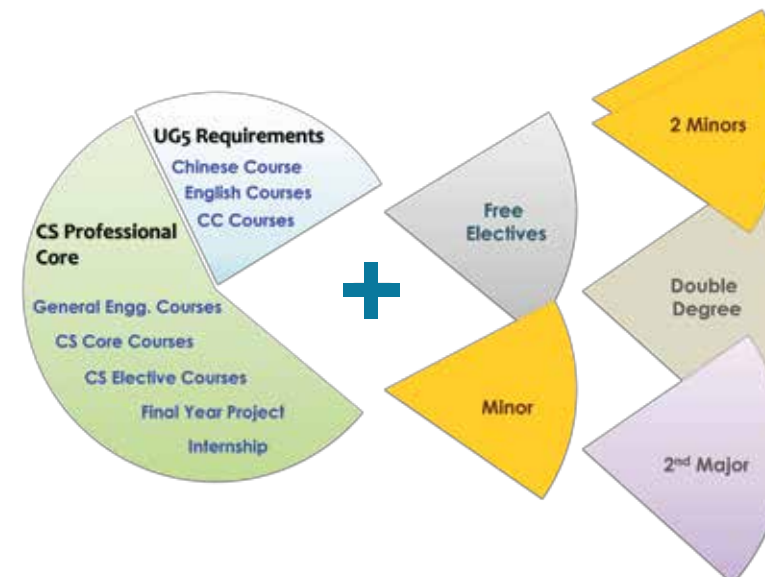
Principles of Operating Systems
Computer and Communication Networks
Design and Analysis of Algorithms
Introduction to Database Management Systems
Introduction to Software Engineering
Legal Aspects of Computing

Capstone Experience

Final Year Project

Experiential Learning

Internship



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Options

Minor(s) or Second Major

Students may opt for a minor or double minors or a 2nd major in another discipline such as Finance, Mathematics, Physics, Psychology, or Risk Management. The requirement for obtaining a minor is to complete 6 to 8 courses of the corresponding discipline; and for 2nd major, it's 12 to 16 courses. Depending on the structure of the 2nd major programmes and the distribution of students' workload, students may take more than 4 years to complete the BEng(CompSc) programme with a 2nd major.

Double-Degree BEng/BBA

Students may opt for the double-degree programme by taking a BEng degree in the first four years of study with some required business courses, and a BBA degree in the fifth year which is run on a self-financed basis.

Admission Requirements

Students seeking admission to the BEng(CompSc) programme have to apply for entry under the Faculty of Engineering Common Admissions Scheme, which allows applicants to use one single code, JS6963, to apply for 8 BEng programmes.

A quota of 140 will be imposed for BEng programmes offered by each department of the Faculty of Engineering. Students can choose their desired study programme after their first year of study, on the basis of academic performance.

JUPAS Applicants

In addition to the University general entrance requirements, applicants with HKDSE qualification are required to fulfill the following programme entrance requirements:

English Language	Level 3
Chinese Language	Level 3
Mathematics	Level 3
Liberal Studies	Level 2
Two Elective Subjects	Level 3 One of the electives must be Physics or Combined Science with Physics components
Mathematics (Extended Module 1 or Module 2)	Level 3 (Preferred but not required)

(HKU general entrance requirements: <http://www.aal.hku.hk/admissions/>)

Non-JUPAS Applicants

Applicants with other qualifications, such as HKALE, GCSE, IB, Associate Degree and Higher Diploma, and Mainland students will be considered on individual merit basis. More details are available at HKU Admission website: <http://www.aal.hku.hk/admissions/>