PRINCIPAL OFFICERS

Chancellor
The Chief Executive, the Honourable TUNG Chee Hwa

Chairman of the Council
Dr the Honourable Sir Sze Yuen CHUNG, GBM, JP

Vice-Chairman of the Council
Dr the Honourable Andrew Li Kwok Nang, SC, JP

Treasurer of the University
Dr LAU Wah-Sum, JP

President
Professor Chia-Wei WOO, BS, MA, PhD, DLitt, DSc

Vice-President for Academic Affairs
Professor Shain-Dow KUNG, BSc, MSc, PhD

Vice-President for Administration and Business
Mr P. A. BOLTON, BA, MA

Vice-President for Research and Development
Dr Otto C.C. LIN, BSc, MSc, PhD
A MESSAGE FROM THE PRESIDENT TO POTENTIAL APPLICANTS

Dear friends,

This is an exciting time for all of us in Hong Kong. In this new era, for the first time, Hong Kong people will be governing Hong Kong. Of course, with the excitement also comes responsibility. A dynamic, prosperous and caring society depends upon all of us and our commitment to the notion that our continued success in this increasingly competitive world will rest squarely upon a foundation of education, culture and technology.

The Hong Kong University of Science and Technology is the university for this new era. We are a young dynamic university dedicated to the future of Hong Kong and the education of the young people who will grow into positions of leadership in the next few decades. We have a modern campus with superior facilities located on a spectacular site looking out over the sea. Most importantly, we have a world-class faculty devoted to stimulating the intellectual growth of our students.

As you read through the pages of this Prospectus, you will learn about the programmes offered by our various Schools and Departments, the kinds of students we are looking for, the way our courses are taught, and the many campus activities in which you will wish to participate.

If you are curious about a wide range of topics and able to translate that curiosity into hard work, if you are compassionate and enthusiastic about life, if you are committed to the economic and social development of Hong Kong and this region, you will find the challenges you are looking for at HKUST.

As HKUST graduates, you can face the future confident in the knowledge and skills at your command. You will be well equipped to help build a better tomorrow for yourselves, your families, and for all of us — the people of Hong Kong — as we confidently face together the dawning of this new era.

Chia-Wei WOO
President
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The objectives of the University are:

(a) to advance learning and knowledge through teaching and research, particularly-

(i) in science, technology, engineering, management and business studies; and
(ii) at the postgraduate level; and

(b) to assist in the economic and social development of Hong Kong.

from The Hong Kong University of Science and Technology Ordinance, 1987
I. THE UNIVERSITY

The Hong Kong University of Science and Technology (HKUST) opened in October 1991, as a technological university dedicated to the advancement of learning and scholarship, with special emphasis on research, postgraduate education, and close collaboration with business and industry.

The University occupies an impressive 60-hectare site on the northern end of Clear Water Bay Peninsula at Tai Po Tsai. Situated on the slopes along the shore, the campus grounds are terraced to afford buildings on all levels with unobstructed panoramic views of the sea.

The campus has been built in two phases. Phase I was completed in July 1991 and has a capacity of 2,000 full-time equivalent (FTE) undergraduate and postgraduate students. Phase II, bringing capacity to about 7,000 FTE students, was completed in January 1993.

The major source of financial support for the University is the Government of Hong Kong through the University Grants Committee (UGC) and its Research Grants Council (RGC). Student fees, other sources of research support and donations are also significant contributors to the University’s budget, which will exceed $1.6 billion in 1996-97. Construction of Phases I and II of the campus was assisted by a grant from the Hong Kong Jockey Club of almost $2 billion towards the cost of over $3.2 billion.

The President is the chief executive officer and the three principal branches of the University are Academic Affairs, Administration and Business, and Research and Development, each headed by a Vice-President. Within Academic Affairs are the four schools which comprise the academic heartland of HKUST, each school divided into departments or divisions. There are a number of academic service units and research units located administratively within the branch as well. Administration and Business is concerned with the non-academic
administrative and financial operation of the University, and Research and Development focuses on research administration and contractual and applied research relevant to Hong Kong’s technological and socio-economic development.

Three of the University’s schools - Science, Engineering, and Business and Management - provide both undergraduate and postgraduate education. The School of Humanities and Social Science offers postgraduate education and general education for all undergraduates. As the medium of instruction is English, classes aimed at improving English language skills are available to students, as needed.

To complement the schools and their constituent academic departments, the University has set up inter-disciplinary research institutes, the Research Centre and the Technology Transfer Centre to facilitate collaboration among the different schools and partnerships between the University and the public and private sectors.

**ACADEMIC FACULTY**

The University recruits worldwide for faculty who have achieved excellence in their fields and are highly respected as both teachers and researchers. These include both established academics and promising younger scholars. More than 85% have experience at the world’s leading research universities, either as PhD graduates, or through postdoctoral studies or teaching appointments.

These men and women care about Hong Kong, its people and its future. They have broad intellectual interests, and wish to work collaboratively with colleagues in other fields and interact with professionals in industry, commerce and the public services. Most importantly, they care about their students.

The University began instruction in 1991 with some 100 faculty, a large percentage of whom were in senior positions. By the end of 1996, more than 500 academics had been appointed.

**STUDENTS**

The University seeks highly qualified and motivated young men and women with wide interests who have received a well-rounded secondary education. In addition to having achieved good grades, they should be active participants in diverse activities and possess great potential.
Most undergraduates enter the University at age 18 or 19. In pursuing their course of study, they are able to obtain both a good general education and a qualification relevant to their career. Nearly all undergraduates are Hong Kong residents whereas the number of non-local postgraduates is around 20% of the total postgraduate population.

The University’s goal is to engage its students in a continuous dialogue, to challenge them intellectually, and to encourage them to think on their own and to learn how to learn. Thus the University’s graduates will become competent professionals, innovative leaders in their fields, adaptable and versatile generalists, and sensitive, caring citizens.

STUDENT NUMBERS

The University admits approximately 1,920 full-time undergraduate students annually. Total enrolment is around 7,000 full-time equivalent students with about 20% of the student population engaging in postgraduate studies.

UNDERGRADUATE PROGRAMMES

Undergraduate programmes normally require full-time attendance for three academic years. The curriculum is founded on a credit-based system, and all undergraduate programmes lead to honours degrees. HKUST believes in total education and the credit-based structure of undergraduate academic programmes strikes a compromise between the sharp focus prevalent in traditional Chinese and British universities and the broad approach characteristic of American universities. To ensure breadth of education, the programmes are so structured that in addition to credits within the major department, students are required to take 18 credits of course work in general education, inclusive of (a) at least 12 credits from the School of Humanities and Social Science, with at least one course in Humanities and one in Social Science; and (b) at least one course from each of the other two Schools offering undergraduate programmes other than the student’s own School. Programmes in the School of Engineering that have attained or are seeking professional accreditation are excepted from this structure. They require at least 9 credits of course work in general education offered by Schools other than the School of Engineering, of which at least one course shall be in Humanities. For graduation, students need to accumulate a total of 100 to 105 credits, as specified for each programme.
All programmes require students to take a year-long one-credit course in English for Academic Purposes during their first year of study. The course aims to train students to acquire the general skills required for tertiary studies, including listening to lectures, giving presentations, organising and structuring academic writing, summarising, paraphrasing and referencing, and understanding different types of writing. Beyond the first year, students' English communication skills will be further strengthened through required course work in English communication at the 100 level or above.

First-degree programmes offered are:

**School of Science**

Bachelor of Science (BSc)
- Biochemistry
- Biology
- Chemistry
- Mathematics
- Physics
- Applied Physics

**School of Engineering**

Bachelor of Engineering (BEng)
- Chemical Engineering
- Chemical and Environmental Engineering
- Chemical and Polymer Engineering
- Civil and Environmental Engineering
- Civil and Structural Engineering
- Computer Engineering
- Computer Science
- Computer Science (Information Engineering)
- Computer Science and Computer Engineering
- Electronic Engineering
- Electronic Engineering (Information and Communication Engineering)
- Industrial Engineering and Engineering Management
- Industrial Engineering and Engineering Management (Transportation Logistics Management)
- Mechanical Engineering
- Mechanical Engineering (Building Services)
**School of Business and Management**

Bachelor of Business Administration (BBA)
- Accounting
- Economics
- Finance
- General Business Management
- Information Systems
- Management of Organisations
- Marketing
- Operations Management

Bachelor of Science (BSc)
- Economics

The quality of work completed is recognised by the assignment of grades where:

- Grade A is given for excellent performance,
- Grade B is given for good performance,
- Grade C is given for satisfactory performance, and
- Grade D is given for a marginal pass.

Students are expected to attend classes regularly and to complete assigned work.

**POSTGRADUATE PROGRAMMES**

The University offers postgraduate studies leading to master’s and doctoral degrees in all four Schools. Please refer to the *Postgraduate Handbook* and individual departmental brochures for further details.
II. UNIVERSITY ENTRANCE REQUIREMENTS

GENERAL UNDERGRADUATE ENTRANCE REQUIREMENTS

To qualify for admission to the University, applicants must normally be at least 17 years of age by the first day of the Academic Year to which they are seeking admission, meet the general entrance requirements of the University and the requirements of the particular programme for which they are applying, and apply before the application deadline.

UNDERGRADUATE ADMISSION

Entry to an undergraduate programme of study at the University requires prospective students to satisfy both the general University and specific programme entrance requirements. Applicants may be requested to attend personal interviews and/or take additional tests to be administered by the University. Interviews are designed for the purpose of providing further assessment of the applicant’s motivation, aptitude and overall suitability for the chosen field of study.
GENERAL UNIVERSITY REQUIREMENTS

The general University requirements for entry in the 1998-99 academic year include ALL of the following:

(A) Hong Kong Certificate of Education Examination (HKCEE)

passes in at least seven subjects at the first and if necessary second attempt, of which

i. at least five must be passed at a single sitting; and

ii. three must be Mathematics, English Language (Syllabus A or B), and either Chinese or an alternative language

(B) Hong Kong Advanced Level Examination (HKALE)

i. passes at the same sitting in

a. either one Advanced Level (AL) subject plus two Advanced Supplementary (AS) subjects, or two AL subjects; and

b. either AS Chinese Language and Culture\(^{(1),(2)}\), or AS Liberal Studies. Subject to approval by the relevant University authority, applicants without either of these subjects but have passed HKCEE Chinese Language may be considered for admission.

and

ii. pass in AS Use of English (UE)

(1) Alternatively, a pass in AL Chinese Literature is acceptable in lieu of AS Chinese Language and Culture, in which case the student is required to pass in addition either (i) two AL subjects, or (ii) one AL subject plus one AS subject; or (iii) three AS subjects.

(2) For applicants who use an alternative language, rather than Chinese, to satisfy the language requirements in the HKCEE, an AL/AS subject may be used as a substitute for the Chinese Language and Culture requirement.
ENTRANCE REQUIREMENT EQUIVALENTS

Alternatively, the general entrance requirements may be satisfied by obtaining one of the following qualifications:

(A)  
   i.  General Certificate of Secondary Education/General Certificate of Education at Ordinary Level - passes in at least seven subjects at the first and if necessary second attempt, including Mathematics, English Language and a language other than English, with five of the subjects passed at a single sitting; and

   ii. General Certificate of Education at the Advanced Level/Advanced Supplementary Level - passes at the same sitting in 1 AL subject plus 3 AS subjects; or 2 AL subjects plus 1 AS subject; or at least 3 AL subjects.

(B) at least one year’s successful full-time study or equivalent in a bachelor’s degree programme at a university or tertiary institution recognised by this University;

(C) a professional diploma, higher diploma or higher certificate from a polytechnic or recognised tertiary college in Hong Kong;

(D) an International Baccalaureate.

Notwithstanding the above, the University may recognise other qualifications, or successful study at another recognised institution. In assessing these qualifications, the University will ensure that such applicants have an educational background equivalent to that required of JUPAS candidates. Proficiency in English is also a consideration.
PROGRAMME ENTRANCE REQUIREMENTS

In addition to the general requirements, applicants for 1998-99 entry must also satisfy entrance requirements specific to their desired programmes of study. Unless otherwise specified, AS level subjects referred to below exclude Use of English, Chinese Language and Culture, and Liberal Studies(1).

Programmes in the School of Science

BSc in Biochemistry
2 AL subjects plus 1 AL/AS subjects
(must include AL Chemistry and AL/AS Biology)

BSc in Biology
2 AL subjects plus 1 AL/AS subject
(must include AL Biology and AL/AS Chemistry)

BSc in Chemistry
AL Chemistry plus one AL subject and one other AL/AS subject

BSc in Mathematics
AL Pure Mathematics plus 1AL/2AS subjects

BSc in Physics;

BSc in Applied Physics
Either (i) AL Physics/Engineering Science + 1AL/2AS subjects
or (ii) AS Physics + 1 AL subject + 1 AS subject
(one of the subjects must be chosen from Applied Mathematics, Mathematics and Statistics and Pure Mathematics)

Programmes in the School of Engineering

BEng in Chemical Engineering;
BEng in Chemical and Environmental Engineering;
BEng in Chemical and Polymer Engineering
3 AL subjects; or 2 AL subjects plus 1 AS subject
(Subjects must be chosen from Applied Mathematics, Biology, Chemistry, Engineering Science, Mathematics and Statistics, Physics, and Pure Mathematics)

(1) In the case that an applicant obtains a pass in AS Chinese Language and Culture as well as in Liberal Studies, the latter may be used to satisfy programme entrance requirements.
UNIVERSITY ENTRANCE REQUIREMENTS

BEng in Civil and Environmental Engineering
AL Pure Mathematics and AL Physics/Chemistry, plus 1AL/2AS subjects

BEng in Civil and Structural Engineering
AL Pure Mathematics and AL Physics/Engineering Science, plus 1AL/2AS subjects

BEng in Computer Science
AL Pure Mathematics plus 1AL/2AS subjects

BEng in Computer Engineering;
BEng in Computer Science (Information Engineering);
BEng in Computer Science and Computer Engineering;
BEng in Electronic Engineering;
BEng in Electronic Engineering (Information and Communication Engineering)
AL Pure Mathematics plus 1AL/2AS subjects. One of these subjects must be AL/AS Physics or AL Engineering Science

BEng in Industrial Engineering and Engineering Management;
BEng in Industrial Engineering and Engineering Management (Transportation Logistics Management)
2 AL subjects; or 1 AL subject plus 2 AS subjects
(Subjects must be chosen from Applied Mathematics, Biology, Chemistry, Computer Applications, Design and Technology, Engineering Science, Mathematics and Statistics, Physics, and Pure Mathematics)

BEng in Mechanical Engineering;
BEng in Mechanical Engineering (Building Services)
2 AL subjects; or 1 AL subject plus 2 AS subjects
(must include Pure Mathematics, and Physics/Engineering Science)

Programmes in the School of Business and Management

ALL BBA programmes;
BSc in Economics
Students must obtain a pass in either AS Chinese Language and Culture or AS Liberal Studies. In addition, a grade of D or above in AS Use of English is normally needed for admission.
MATURE APPLICANTS

Applicants who are aged 25 or over by the first day of the academic year to which admission is sought may apply for direct admission. Mature applicants may be granted exemption from the entrance requirements of the University provided they can demonstrate aptitude and suitability for admission to a particular programme of study.

ADMISSION WITH ADVANCED STANDING

Applicants from universities, polytechnics or other post-secondary institutions who have completed or are studying curriculum relevant to the programme(s) for which they are applying may apply for direct admission with advanced standing. However, applications for direct entry to the second year or later will be assessed on a case-by-case basis.

The amount of advanced credits to be granted will be determined by the major department on review of past academic records and the level of equivalence to HKUST courses required. The major department must work out a personalised curriculum for the student based on the following guidelines.

(a) a minimum of one year full-time study at HKUST is required before the student is considered for award of the degree; and

(b) a minimum of 35 HKUST credits are required for graduation.

Advanced credits granted will not be included in the calculation of grade averages.
Students may enter the University through two routes. Applicants who are seeking admission on the strength of their Hong Kong Advanced Level Examination (HKALE) results should apply via JUPAS, as described below. All others, including applicants currently enrolled in full-time or sandwich degree programmes in one of the UGC-funded institutions, enter by direct admission.

APPLICATION FOR ADMISSION IN 1998

Through JUPAS

The “Joint University Programmes Admissions System” (JUPAS) was introduced in the autumn of 1990. This system enables applicants to apply on the strength of their HKALE results for admission to the undergraduate programmes of the following institutions:

- City University of Hong Kong
- Hong Kong Baptist University
- The Hong Kong Polytechnic University
- Lingnan College
- The Chinese University of Hong Kong
- The Hong Kong University of Science and Technology
- The University of Hong Kong

For 1998 admission through JUPAS, the JUPAS Office will, in September 1997, provide the secondary schools of Hong Kong with the appropriate application forms, copies of the JUPAS Guide and the prospectuses of the seven participating institutions. The JUPAS Guide contains detailed information on application and selection procedures and a list of programmes offered by individual institutions. It is essential that applicants study the JUPAS Guide and the prospectuses of the various institutions carefully before completing the application form. A fee of HK$430 is charged for each 1998-99 application made through JUPAS, collected by the JUPAS Office on behalf of the participating institutions.
For reference, the following are important dates for the process of 1998 admission, although JUPAS may make adjustments to the timetable.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 December 1997</td>
<td>Closing date for applications for admission</td>
</tr>
<tr>
<td>3 January 1998</td>
<td>Applicants to receive an application checklist of their personal data and choices of study programmes</td>
</tr>
<tr>
<td>17 January 1998 (before 12:30 pm)</td>
<td>Final date for applicants to report errors, if any, in application checklist to the JUPAS Office</td>
</tr>
<tr>
<td>From February 1998 onwards</td>
<td>Interviews and tests, where appropriate</td>
</tr>
<tr>
<td>1 June 1998</td>
<td>Final date for requests in changes of study programme choices</td>
</tr>
<tr>
<td>3 July 1998</td>
<td>Applicants to receive an OMR form for the re-prioritisation of choices of study programmes</td>
</tr>
<tr>
<td>6 July 1998</td>
<td>Final date for applicants to notify the JUPAS Office if they have not received their OMR form for the re-prioritisation of choices of study programmes, or if there is any data-entry error in their form</td>
</tr>
<tr>
<td>Mid July 1998</td>
<td>Announcement of HKALE results</td>
</tr>
<tr>
<td>The 2 days following the publication of the 1998 HKALE results</td>
<td>Applicants to submit request for re-prioritisation of choices of study programmes in person to JUPAS OMR Form Collection Centre</td>
</tr>
<tr>
<td>11 August 1998</td>
<td>Publication of results of the Main Round offer in Hongkong Standard, Sing Tao Daily, Ta Kung Pao</td>
</tr>
<tr>
<td>12-14 August 1998</td>
<td>Applicants to reply in person to the institution offering them admission in the Main Round</td>
</tr>
<tr>
<td>11 August 1998</td>
<td>Notification of HKALE appeal results to applicants</td>
</tr>
<tr>
<td>12-13 August 1998</td>
<td>Applicants with upgraded HKALE results as a result of an appeal may apply to the JUPAS Office in person to be reconsidered for offers or &quot;better offers&quot;</td>
</tr>
<tr>
<td>22 August 1998 (before 12:30 pm)</td>
<td>Applicants to reply in person at the JUPAS Office to offers by institutions in the clearing round</td>
</tr>
<tr>
<td>Mid August to September 1998</td>
<td>Subsequent rounds of selection by individual institutions, if vacancies are still available. Applicants, if selected, receive notifications directly from the institutions concerned</td>
</tr>
</tbody>
</table>
Direct Admission

Applicants who are applying for admission on the basis of qualifications other than HKALE results, including non-local applicants, should apply to the University for direct admission. Applicants who are currently enrolled as full-time or sandwich degree students in any of the seven JUPAS participating institutions should also apply through this route even if they are applying on the strength of their current and/or past HKALE results. However, in accordance with guidelines on the inter-institutional transfer of students, applicants wishing to transfer from the first year of a full-time degree programme to the first year of the same or similar discipline/study area at HKUST will be considered only in very exceptional cases.

Copies of the Undergraduate Prospectus and application forms for entry in September 1998 will be available from 3 October 1997 at:

    Admissions, Registration and Records Office
    The Hong Kong University of Science and Technology
    Clear Water Bay
    Kowloon, Hong Kong

Applicants can also download the application form from the University's home page on the World Wide Web at address "http://www.ab.ust.hk/arr" under the topic "Undergraduate Studies - How to Apply".

Applicants for 1998-99 entry are required to pay an application fee of HK$120 using the pay-in-slip provided by the University. The completed application form should be returned to the University at the above address by 31 December 1997 together with a copy of the bank pay-in slip.

Applicants may select up to three degree programmes, to be listed in the order of their preference. Subsequent changes are not normally permitted.

SELECTION PROCEDURES

As stated earlier in this Prospectus, and it is worth repeating, the University seeks highly qualified and motivated young men and women with wide interests who have received a well-rounded secondary education; they should be active participants rather than spectators in diverse activities. They should possess great potential in addition to having achieved good grades.
To meet these aims the University will rely heavily on the information contained in the school principal’s or academic referee’s report and on the information provided by the applicant in the application form.

The JUPAS procedure is described in a previous section (page 13). For direct applications to the University, after a careful scrutiny of the application forms and reports, arrangements will be made for selected applicants to be interviewed from April onwards. However, not all applicants will be interviewed. The fact that some applicants may not be called for an interview does not mean that they are not being considered for admission. Firm offers and some conditional offers will be made to successful applicants. The conditional offers will specify the requirements that will need to be met to gain admission to the chosen programmes of study. To reserve the place offered, applicants may be required to pay a non-refundable deposit which will be applied to the tuition fee. Other selected applicants will be placed on a reserve list and will be reconsidered when the HKALE or other examination results are published.

SUCCESSFUL APPLICANTS

Successful applicants are likely to be those who have strong support from their school principals or academic referees, have gained high examination marks over a number of years and over a wide range of subjects, and have been actively involved in extra-curricular activities.

STUDENTS FROM OVERSEAS

The University welcomes applications from overseas students who are seeking admission to full-time studies at the undergraduate or postgraduate level. Applicants should be aware, however, that competition for admission is such that only very well-qualified candidates will gain admission.

Details of the application procedures are given in the section “Application for Admission in 1998 - Direct Admission”. However, because of differences between the educational system in Hong Kong and those in other countries, students eligible to enter undergraduate programmes in their own countries may find that their qualifications are not necessarily recognised for entry to the first year at HKUST. Prospective overseas undergraduate students should first write to the Director of Admissions, Registration and Records, providing full details of their educational qualifications so that an initial assessment may be made as to their entry qualifications. If official transcripts are in a language other than English or Chinese, a certified translation into English must be provided.
If the assessment indicates that the requirements may be met, appropriate application forms will be sent to the prospective students. These should be returned to the Admissions, Registration and Records Office together with a bank draft to cover the application fee of HK$120 (or US$16.00). At that point the formal selection process will begin.

Certified true copies of all degrees, diplomas, certificates and other qualifications held should be submitted with the application form. Applicants accepted for admission will be required to produce the original documents on arrival at the University.

Overseas students should carefully consider the financial aspects of their studies in Hong Kong before applying for admission. The provisional tuition fee for 1998-99 will amount to $44,500 per annum and accommodation in on-campus undergraduate halls will involve approximately $9,200 per residential year (280 days). In addition monies will be needed for subsistence, text-books, local travel, sports equipment, clothing, and other personal needs. A total of at least HK$100,000 per academic year (9 months) is likely to be required for undergraduate study.

Students from overseas must obtain a student visa in order to study in Hong Kong. Applications should be made well in advance at a Chinese Embassy or Consulate or by writing directly to the Hong Kong Immigration Department, 2/F, Immigration Tower, 7 Gloucester Road, Wanchai, Hong Kong. Applicants will be required to show sufficient financial resources to cover expenses for their period of study. Applicants must also nominate a sponsor who is a resident of Hong Kong, aged over 21, to whom they are known personally.

VISITING OVERSEAS STUDENTS

Students from overseas institutions who wish to study at the University on a short-term basis, i.e. minimum of one semester and a maximum of two, may apply for admission to the University as visiting overseas students. The application fee for 1998-99 is HK$120. Visiting overseas students may take courses but are not enrolled on specific programmes of the University. Details on the application procedures for visiting overseas students can be obtained from the Admissions, Registration and Records Office.
DOUBLE REGISTRATION

Students admitted to a full-time programme of study at this University will be expected to study full-time for their degrees. They will not be permitted to register for another qualification at this University or at another tertiary institution unless they have obtained prior permission, in writing, from the Director of Admissions, Registration and Records. Students should note that student enrolment lists will be compared with those of other tertiary institutions from time to time. If students are found to be registered elsewhere, they will normally be required to discontinue their studies at this University.

ADMISSION ENQUIRIES

Students requiring copies of the Undergraduate Prospectus, application forms, advice or assistance on application procedures, choice of programmes, entrance requirements or other related matters are welcome to visit, phone, write or E-mail to the Admissions, Registration and Records Office.

All enquiries should indicate the degree programme(s) of interest and be addressed to:

Director of Admissions, Registration and Records
The Hong Kong University of Science and Technology
Clear Water Bay, Kowloon, Hong Kong
Telephone: (852) 2623 1118
Facsimile: (852) 2358 0769
E-mail Address: UGADMIT@USTHK.UST.HK

Information related to admissions to the University can also be found at the following address on the World Wide Web:
http://www.ab.ust.hk/arr

Opening Hours of the service counter at Room 1376:

Mondays - Fridays 9:00 am - 12:30 pm
2:00 pm - 5:00 pm
Saturdays 9:00 am - 12:00 noon
IV. THE SCHOOL OF SCIENCE

Degree offered: Bachelor of Science (BSc) with Honours

Science is about creativity and originality. The School of Science nurtures an environment that is conducive to independent, critical and original thinking.

The School of Science, which comprises five Departments: Biochemistry, Biology, Chemistry, Mathematics, and Physics, enrols about 23% of the University’s undergraduate and graduate students.

The School offers a whole spectrum of programmes in biological science, physical science and mathematical science, leading to the degree of Bachelor of Science. In response to the needs of Hong Kong and consistent with the special mission of HKUST, the Departments in the School emphasise scientific studies in areas of technological importance.

The University curriculum is founded on a credit-based system, and all undergraduate degrees are honours degrees. The undergraduate curricula in the School of Science are broad-based, and all students are required to take courses in the other three Schools: School of Engineering, School of Humanities and Social Science, and School of Business and Management, in addition to a concentration of specialist courses in their own disciplines.

SELECTION CRITERIA

Selection for admission to the University and the School is not based solely on the results of a single examination. Results of the HKALE and HKCEE are assessed together with other criteria such as progress and breadth of subjects taken throughout secondary school and participation in extra-curricular activities. Reports and recommendations from school principals and teachers are critically evaluated.

For overseas and other applicants who have not participated in Hong Kong public examinations, other equivalent examinations and/or academic qualifications are considered.
INTERVIEWS AND TESTS

Applicants may be requested to attend personal interviews and/or take additional tests to be administered by the University. Interviews are designed to provide further assessment information on the applicant’s motivation, aptitude and overall suitability for the chosen field of study.
The Department of Biochemistry

Programme: BSc in Biochemistry

Biochemistry is the study of biological molecules such as proteins, nucleic acids, lipids etc. which form the morphological structures of the cell and cellular organelles, provide machinery for the inheritance and expression of genetic information and energise catalytic transformations essential to cellular growth and reproduction. The study of the nature of these molecules and their reactions has brought about rapid advances in the biological and medical sciences, and has furthermore enabled the development of biotechnological industries that are playing an increasingly important role in the global economy.

Degree Structure and Curriculum

The objectives of the BSc programme in Biochemistry are to introduce students to the basic concepts of biochemical molecules and processes, and to provide training in the methodologies used in laboratory investigations. Accordingly, the programme will emphasise both theory and experimentation.

In addition to basic chemistry and biology classes, first-year students will be introduced to the concepts of molecular biology; molecular structure and metabolism in topics such as nucleic acid structure and enzymology; DNA replication and transcription; protein structure; enzyme kinetics; and the chemistry and metabolism of carbohydrates, lipids and amino acids. Basic techniques in biochemical experiments will be introduced.

Second-year courses will emphasise molecular and cellular biochemistry. The principles and laboratory techniques involved in genetic engineering will also be covered.
In the final year, in addition to the lecture courses in biotechnology, physical biochemistry, protein chemistry and biochemical aspects of human diseases, nutrition, neuro-science and cell division, students may choose to conduct specialised research in a major area under the supervision of academic advisers or to participate in a seminar programme examining the current status of various biotechnological development.

**Career Prospects**

Graduates from the Biochemistry programme engage in a wide spectrum of careers. Popular careers include laboratory technicians, research assistants, secondary school teachers, executives and sales agents in drug companies or other fields, or pursuing further studies.

**Research Activities**

Research in the Department can be grouped into three disciplines: (1) genetic and protein engineering, (2) molecular and cellular biochemistry, and (3) medicinal and plant biochemistry.

Laboratories in the Department are equipped with advanced instrumentation. Equipment which serves both biochemical and biotechnological studies includes nuclear magnetic resonance spectrometers, a protein sequencer, oligonucleotide synthesizers, a DNA sequencer, a centrifugal partition chromatograph, fermentors, a mass spectrometer, growth chambers, and cell culture facilities.

**Further Information**

The Department maintains a home page on the World Wide Web at address "http://www.ust.hk/~webbich/".

**Admissions Requirements**

- In addition to the General University Requirements, acceptable grades in:
  - AL Chemistry + 1 AL subject +
  - 1 AL/AS subject
  (Must include AL/AS Biology)
- Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.
The Department of Biology

Programme: BSc in Biology

The study of biology covers a wide range of life sciences at all levels of organisation, ranging from molecules and cells to organisms and populations in both plants and animals. Our biological teaching and research programmes reflect all levels, with emphasis on the molecular and cellular aspects. Research areas within the Department include molecular biology and genetics, cell and development biology, plant and animal physiology, neurobiology, marine biology and environmental biology. The Department also contributes to the research and development programmes of the Biotechnology Research Institute and the Institute for Environmental Studies.

The Department of Biology is equipped with modern teaching facilities. Faculty and students may utilise the extensive central facilities and computer network on-campus to enhance the teaching and learning process.

Degree Structure and Curriculum

The three-year undergraduate programme leading to the Bachelor of Science degree provides basic training in the biological sciences through course work and laboratory studies. During the first two years of study, students take a set of core subjects with the associated laboratory sessions in both the Biology and Biochemistry Departments. In their second and third years of study, students may take a series of electives specialising in specific subfields of biological

<table>
<thead>
<tr>
<th>Core</th>
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<td>Other Required Electives</td>
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<td>• Microbiology</td>
<td>• Computer Sciences</td>
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</table>

Technical Communication

Biology Seminars

Undergraduate Research Projects
sciences. These specialties reflect the current and future needs of Hong Kong and its neighbouring territories. Options for seminar courses that are designed to enhance students’ communication skills and research projects to train students in laboratory research are also provided.

Career Prospects

Graduates from the Biology Department have developed careers in areas such as system management and administration, medical and health services, scientific research sector, teaching in secondary schools, etc. The training in the Biology programme nurtures and equips our students, enabling them to handle challenges effectively and succeed in a variety of professions.

Research Activities

Research in the department is supported by state-of-the-art equipment, including facilities for cell culture and hybridoma, molecular and cell biology, and modern microscopy as well as animal care and plant growth facilities, which allows us to conduct research on topics at the frontier of biological sciences.

Further Information

The Department maintains a home page on the World Wide Web at "http://www.ust.hk/~webbo/" where you can obtain additional information on admission, the Department, our faculty and their research specialty.

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Biology + 1 AL subject + 1 AL/AS subject
  - (must include AL/AS Chemistry)
- Other candidates with equivalent qualifications may also apply.
Chemistry is the science which deals with the composition and properties of substances, and with the reactions by which substances are produced or converted into other substances. It is traditionally divided into four mainstream areas: analytical, organic, inorganic, and physical chemistry. Just as in many other fields of study, the thrusts of advances in chemistry are gradually shifting to interdisciplinary areas, thus creating new opportunities for research and study.

Degree Structure and Curriculum

The BSc programme in Chemistry provides an excellent general training in analytical thinking and problem solving and prepares students for employment in the areas of chemical science, education and technology or further study in graduate research. The curriculum has been designed to allow students maximum flexibility in determining the extent of their specialisation. With the 16% free electives, students can major in chemistry and have a concentration in one other subject. Students may also gain extensive chemistry training as well by taking additional chemistry courses for the 16% free electives and by participating in approved research projects.
Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Chemistry + 1 AL subject + 1 AL/AS subject
- Other candidates with equivalent qualifications may also apply.

Career Prospects

Graduates from the Chemistry programme can have their careers working in Government and industrial laboratories, in environmental related sectors, and in pharmaceutical and biotechnological companies; being marketing representatives in trading and accounting companies; teaching in secondary schools; or pursuing postgraduate studies in chemistry, biochemistry or chemical engineering.

Research Activities

The research programmes in the Department focus on fundamental, interdisciplinary and applied areas. Among such areas with greatest potential to achieve significant results of relevance to the growth of technological industry are studies of biologically active molecules, new synthetic methods and materials, and surface science.

Further Information

The Department maintains a home page on the World Wide Web at address "http://www-chem.ust.hk/".
The Department of Mathematics

Programme: BSc in Mathematics

There are five options within the first-degree programmes of the Department of Mathematics: Pure Mathematics, Mathematical Sciences, Scientific Computation, Statistics and General Mathematics. In the Mathematical Sciences programme, three areas of study are offered, namely physical and engineering science; computer science; and business and management. All courses of study lead to the Bachelor of Science degree in Mathematics.

Generally speaking, students in the Pure Mathematics option are interested mainly in the mathematical contents of the subject matter, while students of Mathematical Sciences are more interested in the scientific content. The Mathematical Sciences option includes multidisciplinary study undertaken in conjunction with other Departments of the University. The Scientific Computation option is interdisciplinary and emphasises the study of large scale computational algorithms (that are reliable, accurate and economical) to solve complex problems in science and technology. The general theme of the Statistics option is to provide students with statistical knowledge, helping them to develop problem-solving skills for real-life problems. In both the design of undergraduate programmes and in research, the Department of Mathematics collaborates closely with many departments in the University, based on the interests of students and academic staff.

The strange attractor of the Rössler equations as computed by a second-year student learning about chaos in dynamical systems.
Degree Structure and Curriculum

BSc in Mathematics

- Pure Mathematics
- General Mathematics
- Mathematical Sciences
- Scientific Computation
- Statistics

- Physical & Engineering Science
  - Physics
  - Applied Mechanics
  - Control Systems
  - Signal Processing & Communication
  - Electromagnetics
  - Industrial Engineering

- Computer Science
  - Artificial Intelligence
  - Computer Systems
  - Data & Knowledge Base Management

- Business & Management
  - Accounting
  - Business Information Systems
  - Management Operations
  - Economics
  - Organisation and Management
  - Marketing
  - Finance

Career Prospects

1996 Mathematics Graduates

- Education 14(25.5%)
- Community & Social Services 3(5.5%)
- Commerce & Business 31(56.4%)
- Manufacturing & Industries 7(12.7%)

Further Information

The Department maintains a home page on the World Wide Web at address "http://www.math.ust.hk/".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  AL Pure Mathematics + 1 AL / 2 AS subjects
- Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.
Physics is the science that deals at the most fundamental level with matter and energy, their interactions, and their transformation. Thus, it provides the foundation for many other sciences and for engineering, in which the scientific principles and laws are applied to the development of practical problems and devices.

The programmes in the Department of Physics emphasise the study of basic laws and principles as well as practical problem solving. This involves the use of the 1) Active Physics Learning Environment (APLE) facilities in which lecture, recitation and experiment are integrated in the same session using multimedia computers, and 2) Interactive Classrooms (IC) in which students’ opinions and/or answers solicited during class can be tabulated and displayed instantaneously for feedback purposes. Students are given opportunities to engage in interdisciplinary activities in collaboration with other departments.

Degree Structure and Curriculum

The BSc programme in Physics provides a general education for students. The programme is very flexible and students can have choices of courses to broaden their scope of learning, and to tailor a programme to be a minor in another field.

The BSc programme in Applied Physics is intended for students with interest in the more applied areas of physics.
The programme offers training in the technologically demanding fields of scientific computation, lasers and optics, and materials. It also offers some flexibility with many elective courses.

**Career Prospects**

Graduates from the Physics programme can embark on careers such as teaching in secondary schools, working in the technology sector or business and management sector, or pursuing further studies in physics or other fields.

Since physics is the foundation for many other sciences and for engineering, many, if not a majority of the physics degree holders have gone on to successful careers outside of the mainstream physics profession.

**Research Activities**

Research in the Department is supported by modern instrumentation. It is heavily slanted towards condensed matter physics and optical physics, because among the physics subfields, they have the greatest impact on our daily lives.

**Further Information**

The Department maintains a home page on the World Wide Web at address "http://physics.ust.hk/".

**Admissions Requirements**

- **In addition to the General University Requirements, acceptable grades in:**
  
  **Either** (i) AL Physics/Engineer Science + 1AL/2AS subjects
  
  **or** (ii) AS Physics + 1AL subject + 1AS subject
  
  (one of the subjects must be chosen from Applied Mathematics, Mathematics and Statistics and Pure Mathematics)

- **Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.**
V. THE SCHOOL OF ENGINEERING

Degree offered: Bachelor of Engineering (BEng) with Honours

The School of Engineering enrol about 40% of the University’s undergraduate and postgraduate students. It comprises six departments: Chemical Engineering, Civil and Structural Engineering, Computer Science, Electrical and Electronic Engineering, Industrial Engineering and Engineering Management, and Mechanical Engineering. In addition, the School offers a degree programme in Computer Engineering managed jointly by the Computer Science and Electrical and Electronic Engineering Departments.

All departments offer first-degree programmes leading to the BEng degree, and postgraduate studies leading to the master’s and doctoral degrees. Undergraduate teaching in the School of Engineering is based on fundamentals in science and mathematics with strong emphasis on laboratory skills and design techniques. In addition, undergraduate students are required to attend industrial training in an approved training centre. Practical hands-on experience gained from industrial training in an industrial-like environment is necessary for professional engineering certification. Instruction and research in all disciplines is supported by the University’s state-of-the-art laboratories, computing facilities and the Library as well as the central facilities including the Advanced Engineering Materials Facility, the Microelectronics Fabrication Facility, the Materials Characterisation and Preparation Facility, the Computer Aided Design and Manufacturing Facility, and the Electrical and Mechanical Services Facility.

To provide students with an integrated and modern view of the discipline, students are required to take at least 9 credits (or 6 credits for the IEEM programme) of general education courses offered by other schools. Beginning in 1997/98, all engineering students participate in a three-year immersion style English language enhancement programme.

SELECTION CRITERIA

Selection for admission to the University and the School of Engineering is not based solely on the results of a single examination. Applicants are evaluated on a variety of characteristics. In addition to HKCEE and HKALE results, the University relies on recommendations and reports from school principals or academic referees. Applicants’ progress and breadth of subjects taken throughout secondary school, and participation in extra-curricular activities are also considered.
For applicants who have not participated in Hong Kong public examinations, other equivalent examinations and/or academic qualifications are considered.

**INTERVIEWS AND TESTS**

Applicants may be requested to attend personal interviews and/or take additional tests to be administered by the University. Interviews are designed for the purpose of providing further assessment of information related to the applicant’s motivation, aptitude and overall suitability for the chosen field of study.
The Department of Chemical Engineering

What is Chemical Engineering?

Traditionally, chemical engineers concern themselves with chemical and biochemical processes that turn raw materials into valuable products. These processes can range from a relatively small production of a drug to fight cancer to the enormous multi-plant production site for converting crude oil into petrol, aviation fuel, kerosene and other petroleum fractions. In fact, many of the products we use daily, such as paper, cosmetics, vitamins and detergents, can be directly related to chemical engineering. During the past 100 years, through the efficient design and operation of manufacturing processes, chemical engineers have made tremendous contributions to our standard of living.

Programme: BEng in Chemical Engineering

Chemical Engineering is a discipline in which the principles of physical, chemical and natural sciences are used to solve problems in applied chemistry, in process and in manufacturing situations. Chemical engineers design, develop, and optimise processes and plants, operate them, manage personnel and capital, and conduct research for new developments.

In Hong Kong, chemical engineering is an important component in virtually all processing and manufacturing industries, including plastics, food and beverage, microelectronics, textiles, electroplating and environmental control and management.
Degree Structure and Curriculum

The Bachelor of Engineering in Chemical Engineering is a three year programme only available at The Hong Kong University of Science and Technology. In the first year students consolidate their basic science skills and are introduced to the concepts of chemical engineering. The second year aims to provide students with essential core chemical engineering skills through reaction systems, separation processes, fluid flow, energy systems and mass transfer. In the final year students integrate the knowledge gained in the first two years by studying plant design incorporating project economics and process safety. In addition, they may select elective courses in environmental engineering, advanced materials and biochemical engineering. Unlike other chemical engineering programs elsewhere, students at HKUST must take courses in business, industrial management and social sciences. This key aspect in the curriculum introduces students to economic, accounting and marketing relevant to the industries of Hong Kong.

Career Prospects

Chemical Engineering graduates can find job opportunities in a wide range of areas such as processing, manufacturing research & development, Government, finance, commercial and teaching. Many significant opportunities exist for chemical engineers in the offices of international chemical and petrochemical companies located in Hong Kong and manufacturing jobs in other less traditional industries such as microelectronics and plastics. Therefore, while preparing their chemical engineering graduates for a world-wide career in the traditional chemical industries, the Department of Chemical Engineering at HKUST has been carefully developing its curriculum to provide graduates with the specialist skills required to suit and improve the needs of Hong Kong’s industries.
Chemical engineers are responsible for the design, operation and management of new processes and through their efforts, new petroleum products, plastics, agricultural chemicals, household products, pharmaceuticals, electronic and advanced materials, photographic materials, chemical and biological compounds, various food, beverages and other products evolve. Chemical engineers now increasingly find employment in areas of environment, safety and financial analysis. Many chemical engineers work in or operate their own consultancy company.

**Professional Recognition**

The BEng in Chemical Engineering at HKUST is one of a few select degree programmes throughout the world which is accredited by two professional organisations, namely, the Hong Kong Institution of Engineers (HKIE) and the Institution of Chemical Engineers (UK). Our graduates are able to join the HKIE formal training scheme and, combined with relevant practical experience, will achieve the status of Professional Engineer within a few years of graduating. This professional recognition is key to achieving employment in many major international companies.

**Further Information**

The Department maintains a home page on the World Wide Web at address: "http://www.ust.hk/~webceng".

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**Admissions Requirements**

- In addition to the General University Requirements, acceptable grades in:
  2 AL subjects + 1 AL/AS subject
  (Subjects must be chosen from Applied Mathematics, Biology, Chemistry, Engineering Science, Mathematics and Statistics, Physics, and Pure Mathematics.)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Programme: BEng in Chemical and Environmental Engineering

Processes that turn raw materials into valuable products produce effluents and wastes and all companies handling such processes need environmental engineers with a basic knowledge of chemical engineering to design, control, manage and operate environmental treatment facilities.

Chemical and environmental engineering is a discipline in which the principles of physical, chemical and natural sciences are used to solve problems in applied chemistry, in processes and in manufacturing situations responsible for waste generation. Environmental engineers design, develop, and optimise environmental processes and treatment plants, operate them, manage personnel and capital, and conduct research for new developments to minimise waste production.

In Hong Kong, chemical and environmental engineering is an important component in virtually all processing and manufacturing industries, including plastics, food and beverage, microelectronics, textiles and electroplating; environmental control is required to manage and minimise the waste generated by these production organisations.

Degree Structure and Curriculum

The BEng in Chemical and Environmental Engineering is a three year programme only available at The Hong Kong University of Science and Technology. In the first year students consolidate their basic science skills and are introduced to the concepts of environmental pollution. The second year aims to provide students with essential core chemical engineering skills through reaction systems, separation processes, fluid flow, energy...
systems and mass transfer. In addition, environmental control and environmental laboratory experiments are studied. In the final year students integrate the knowledge gained in the first two years by studying the design of environmental treatment systems incorporating project economics and process safety. Unlike most other chemical engineering programmes students at HKUST must take courses in business, industrial management and social sciences. This key aspect in the curriculum introduces students to economics, accounting and marketing relevant to the industries of Hong Kong.

**Career Prospects**

Chemical and Environmental Engineering graduates can find job opportunities in a wide range of areas such as processing, manufacturing research & development, Government departments such as the Environmental Protection Department, consulting, finance, commercial and teaching. Many significant opportunities exist for chemical engineers in the offices of international chemical and petrochemical companies located in Hong Kong and manufacturing jobs in other process industries such as microelectronics and plastics. Therefore, while preparing its chemical and environmental engineering graduates for a world-wide career in the traditional chemical industries, the Department of Chemical Engineering at HKUST has been carefully developing its curriculum to provide graduates with the specialist skills required to suit and improve the needs of Hong Kong’s industries.

Chemical engineers are responsible for the design, operation and management of new processes and through their efforts, new petroleum products, plastics, agricultural chemicals, household products, pharmaceuticals, electronic and advanced materials, photographic materials, chemical and biological compounds, various food, beverages and other products evolve. Each of these industries has its own environmental problems which must be solved by professional environmental engineers. Environmental engineers now increasingly find employment in the environmental, safety and health departments of all types of industries or environmental consultancy companies.
Professional Recognition

Our existing BEng in Chemical Engineering at HKUST is one of a few select degree programmes throughout the world which is accredited by two professional organisations, namely, the Hong Kong Institution of Engineers (HKIE) and the Institution of Chemical Engineers (UK). Our graduates are able to join the HKIE formal training scheme and, combined with relevant practical experience, will achieve the status of Professional Engineer within a few years of graduating. This professional recognition is the key to achieving employment in many major international companies and we will submit this new degree programme for accreditation.

Further Information

The Department maintains a home page on the World Wide Web at address "http://www.ust.hk/~webceng".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  2 AL subjects + 1 AL/AS subject
  (Subjects must be chosen from
  Applied Mathematics, Biology,
  Chemistry, Engineering Science,
  Mathematics and Statistics, Physics,
  and Pure Mathematics.)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Programme: BEng in Chemical and Polymer Engineering

In Hong Kong, chemical and polymer engineering is an important component in virtually all processing and manufacturing industries, including plastics, toys, microelectronics, textiles, leisure, and fiber optics.

Degree Structure and Curriculum

The BEng in Chemical and Polymer Engineering is a three-year programme only available at The Hong Kong University of Science and Technology. In the first year students consolidate their basic science skills and are introduced to the concepts of chemical and polymer engineering. The second year aims to provide students with essential core chemical engineering skills through reaction systems, separation processes, fluid flow, energy systems, and mass transfer. In addition, polymer science and engineering courses are studied, and polymer engineering experiments are carried out. In the final year, students integrate the knowledge gained in the first two years by studying plant design incorporating project economics and process safety. In addition, they may select elective courses in polymers and advanced materials. Unlike most other chemical engineering programs, students at HKUST must take courses in business, industrial management, and social sciences. This key aspect in the curriculum introduces students to economics, accounting, and marketing relevant to the industries of Hong Kong.

Career Prospects

Chemical and Polymer Engineering graduates can find job opportunities in a wide range of areas such as processing, manufacturing research & development, Government, finance, commercial, and teaching. Many significant opportunities exist for chemical engineers in the offices of international chemical and petrochemical companies located in Hong Kong and manufacturing jobs in other less traditional industries such as microelectronics and plastics. Therefore, while preparing its chemical engineering graduates for a world-wide career in the
traditional chemical industries, the Department of Chemical Engineering at HKUST has been carefully developing its curriculum to provide graduates with the specialist skills required to suit and improve the needs of Hong Kong’s industries.

Chemical and polymer engineers are responsible for the design, operation and management of new processes and through their efforts, new petroleum products, plastics, agricultural chemicals, household products, pharmaceuticals, electronic and advanced materials, photographic materials, chemical and biological compounds, various food, beverages and other products evolve. Polymer engineers now increasingly find employment in electronics industry, semiconductors and electronics industry. Packaging of integrated circuits needs engineers with a strong background in chemical and polymer engineering. Many chemical engineers work in or operate their own consultancy companies.

Professional Recognition

Our existing BEng in Chemical Engineering at HKUST is one of a few select degree programmes throughout the world which is accredited by two professional organisations, namely, the Hong Kong Institution of Engineers (HKIE) and the Institution of Chemical Engineers (UK). Our graduates are able to join the HKIE formal training scheme and, combined with relevant practical experience, will achieve the status of Professional Engineer within a few years of graduating. This professional recognition is the key to achieving employment in many major international companies and we will submit this new degree course for accreditation.

Further Information


Admissions Requirements

• In addition to the General University Requirements, acceptable grades in:
  2 AL subjects + 1 AL/AS subject
  (Subjects must be chosen from Applied Mathematics, Biology, Chemistry, Engineering Science, Mathematics and Statistics, Physics, and Pure Mathematics)
• Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Civil and Structural Engineering is a broad-based discipline which provides people with the knowledge and technical skills to solve problems related to the creation and advancement of civilisation. Civil and structural engineers are primarily responsible for the planning, design and construction of what is commonly referred to as the infrastructure of society. This includes the development, utilisation, and control of resources for the benefit of mankind. Keeping abreast of the rapid changes in the practice of the profession, the Civil and Structural Engineering programme at HKUST emphasises the teaching of fundamental knowledge and basic technical and human skills with a view to prepare students for meeting the challenges in the development of a modern society. In particular, the programme is aimed at familiarising students with the broad and interdisciplinary nature of the profession, and its role in, and responsibility to, society.

In Hong Kong, as in many other parts of the world, the 1990’s is the decade of environmental awareness as well as rapid development and modernisation of infrastructure. The PADS (Ports & Airport Development Scheme) designed for and conducted in Hong Kong present an enormous challenge to the ingenuity and creativity of civil and structural engineers. The Department, through teaching and research, is committed to motivate and equip students with superior technical competence, managerial skills and leadership quality to fulfil the present and future needs of Hong Kong.
Degree Structure and Curriculum

Students in Civil Engineering learn the following subjects:

- Construction management and technology
- Environmental engineering
- Geotechnical engineering
- Structural engineering
- Systems engineering
- Transportation systems engineering
- Water resources and hydraulic engineering

In addition, all students will take a range of courses from other disciplines to ensure they receive a well-rounded education. These courses include the basic sciences - mathematics, physics, chemistry, computer science, humanities and social sciences and also business and management subjects. In the third year of his/her study, each student is required to complete a final-year project, which comprises a written report and presentation in front of a panel, under the supervision of an academic advisor.

Career Prospects

Graduates of the BEng in Civil and Structural Engineering programme have excellent opportunities to work in a wide range of areas. These include: Government Departments; engineering consulting industries; construction companies; and international engineering industries. A civil engineering education is also a good foundation for careers as middle- to top-level managers, sales and technical representatives of a wide range of businesses.
Professional Recognition

The BEng in Civil and Structural Engineering degree at HKUST has been accredited by the Hong Kong Institution of Engineers (HKIE). Graduates are eligible to apply for Graduate Membership in the HKIE. After completing the HKIE training scheme, which normally takes three years, graduates may apply to sit the examination to become Corporate Members of HKIE.

Further Information

The Department maintains a homepage on the World Wide Web at address "http://cesu2.ust.hk".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Pure Mathematics + AL Physics/Engineering Science + 1 AL/2 AS subjects
- Candidates applying on the basis of other qualifications should demonstrate acceptably high grades in the equivalent subjects in examinations taken.
Programme: BEng in Civil and Environmental Engineering

Civil and Environmental Engineering is a new degree programme offered by the Civil and Structural Engineering Department. This new programme will provide students with a broad training in civil engineering, but with a special focus in the environmental engineering field. That is, this degree programme will equip students with a general civil engineering background including structural, geotechnical, water resources/hydraulics, transportation, construction management and systems engineering, but at the same time emphasise an in-depth training in the areas of water and wastewater engineering, solid/hazardous waste management, and air/noise pollution control.

Environmental problem is a big issue in the Southeast Asia region including Hong Kong. To cope with such a problem, it will require properly trained environmental engineers with a general civil engineering background so that they are able to design, construct and operate engineering facilities to remove pollutants from our water, air, and land. Each year a group of 20 to 25 students will be admitted to this programme.

Degree Structure and Curriculum

Students in Civil and Environmental Engineering Programme will learn the following subjects:

- Construction materials and technology
- Structural engineering
- Geotechnical engineering
- Water resources/hydraulics engineering
- Transportation and systems engineering
- Water and wastewater engineering
- Solid/hazardous waste management
- Air and noise pollution control
In addition, each student is also expected to take a wide range of courses from other disciplines to ensure that they have a well-rounded education. These will include the basic sciences (mathematics, physics, & chemistry), computer science, humanities and social sciences, as well as business and management subjects. In the third year of study, a student is required to complete a final-year project, which comprises a written report and presentation in front of a panel, under the supervision of a faculty member.

Career Prospects

Graduates of Civil and Environmental Engineering have excellent opportunities to work in a wide range of areas. These include: Government Departments such as Environmental Protection Department, Water Supply Department and Drainage Services Department; environmental engineering consulting industries, international engineering industries; technical and sales representatives of environmental businesses.

Professional Recognition

This Programme is offered by the Department of Civil and Structural Engineering at HKUST and aims to provide students with a professional training both in the fields of Civil Engineering and Environmental Engineering. The BEng in Civil and Structural Engineering degree at HKUST has been accredited by the Hong Kong Institution of Engineers (HKIE). After completing the HKIE training scheme, graduates may apply for the examination to become Corporate Members of Environmental Discipline in the HKIE.

Further Information

The Department maintains a homepage on the World Wide Web at address "http://cesu2.ust.hk".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  AL Pure Mathematics + AL Physics/Chemistry + 1 AL / 2 AS subjects
- Candidates applying on the basis of other qualifications should demonstrate acceptably high grades in the equivalent subjects in examinations taken.
The Department of Computer Science

Programmes: BEng in Computer Science
- BEng in Computer Science (Information Engineering)
- BEng in Computer Science and Computer Engineering

As an engineering discipline, computer science studies the structure and function of computers as well as the application of computers in solving many important scientific, engineering, and commercial problems. The Computer Science programmes at HKUST cover both software and hardware, but emphasise the former. This emphasis is consistent with the worldwide trend of the increasing importance of computer software in many challenging application areas.

Degree Structure and Curriculum

The Department offers several programmes to meet the needs of different students, but all these programmes share roughly the same set of core courses to provide students with solid training in computer science. The BEng programme in Computer Science is a general programme covering many important areas of computer science.

Starting from the 1998-99 academic year, two new programmes will be launched. The BEng programme in Computer Science (Information Engineering) provides students with a strong background to compete favourably in the emerging areas of information engineering. Two streams of study will be offered. The Networking Stream emphasises principles and applications of digital communication and computer networks as well as
the development of network programs. The Multimedia Computing Stream emphasises computer processing of text, audio, image, and video data as well as intelligent multimedia human-computer interfaces.

The second new programme is a dual major BEng programme in Computer Science and Computer Engineering. This is intended to be an elite and challenging programme for highly capable students to satisfy the requirements of both the Computer Science and Computer Engineering programmes (see also the separate description on the BEng programme in Computer Engineering) for a single degree with two programme designations in the normal study period of three years. This unique dual-major programme is a strong Computer Science programme with additional in-depth training in systems-related areas central to computer engineering.

**Career Prospects**

Employment in the computing field is a much sought after career. With solid formal training in the discipline, Computer Science graduates definitely have competitive advantages, especially in high-quality jobs in the emerging software and information industries.

In particular, the two newly introduced programmes have been carefully designed with the specific needs of Hong Kong and its surrounding region in mind. Unlike other programmes in information engineering and computer engineering, these programmes place emphasis on the software aspects and thus are closer in nature to computer science than electrical engineering. Graduates will be well-equipped with knowledge in computer science and specialisation in the important areas of information engineering or computer engineering.
Professional Recognition

Accreditation of the three BEng programmes will be sought once the Hong Kong Institution of Engineers (HKIE) has established its criteria for the accreditation of Computer Science programmes. The Department is working closely with the HKIE in establishing accreditation criteria and policy that are in line with common practices adopted by other well-recognised international engineering accreditation bodies.

Further Information

The Department maintains a homepage on the World Wide Web at the address "http://www.cs.ust.hk/".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Pure Mathematics +
  - 1 AL/ 2 AS subjects
  One of these subjects must be AL/AS Physics or AL Engineering Science for BEng in Computer Science (Information Engineering) and BEng in Computer Science & Computer Engineering applicants.
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
BEng in Computer Engineering

We are in the information age and computers and their applications are at its heart! Technology such as the World Wide Web, mobile communication and modern banking all depend vitally on computers and give us insight into the limitless possibilities computers now bring us. Computer engineering is one of the engines driving the development of these technologies. Computer engineering is concerned with the design, analysis and implementation of computer systems. It bridges the gap between computer science and electronic engineering and correspondingly the inherent bond between software and hardware. Like all other engineering disciplines, computer engineering is an applied science, combining basic sciences, notably physics and mathematics with economics, sociology and other human factor issues in the solution of problems perceived by individuals and organisations. There is a need worldwide for people with skills in computer engineering, as well as in related technologies, to solve existing problems and develop new applications. The BEng programme in Computer Engineering is designed to prepare students for this challenge.

Degree Structure and Curriculum

The BEng in Computer Engineering programme at HKUST (CPEG) is jointly administered by the Department of Electrical and Electronic Engineering (EEE) and the Department of Computer Science (CS), bringing you the best of both worlds. The degree offered upon successful completion of the three year programme is Bachelor of Engineering in Computer Engineering.

The programme is based on a balanced mixture of core courses from each discipline, providing a broad basic background from...
which to branch later, in the second and third years. Throughout the CPEG programme the emphasis remains two-pronged, both on "Engineering of Computers" and on "Computers in Engineering"

**Career Prospects**

The career prospects of Computer Engineers are excellent. Industry, commerce and Government all rely heavily on computers and increasingly need the services of computer engineers to design, support and develop new computer applications. For example, major banks in Hong Kong have very sophisticated computer infrastructures and communication networks that rely heavily on teams of computer engineers for their maintenance and development. The possible career paths of computer engineers include programmer, analyst, network specialist, designer, systems analyst, systems programmer, sales and all can lead to management roles in technology areas. Possible employers are in every business sector including banking, telecommunications, transportation, computer sales, project consultants, manufacturing, construction and the Government.

**Professional Recognition**

The BEng in Computer Engineering degree from HKUST is accredited by the Hong Kong Institution of Engineers (HKIE), an accreditation which is recognised internationally. Combined with work experience after graduation this leads to the status of Professional Engineer.
Further Information

The Department maintains a home page on the World Wide Web at address "http://www.cpeg.ust.hk/".

Enquiries on the programme can be directed to the Department's Administrative Office:
Telephone: 2358 8512

You are also welcome to talk to our Programme Directors:

<table>
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<tr>
<th>Name</th>
<th>Telephone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Prof. Mounir Hamdi</td>
<td>2358 6984</td>
<td><a href="mailto:HAMDI@CS.UST.HK">HAMDI@CS.UST.HK</a></td>
</tr>
<tr>
<td>Prof. Ross D Murch</td>
<td>2358 7044</td>
<td><a href="mailto:EERMURCH@EE.UST.HK">EERMURCH@EE.UST.HK</a></td>
</tr>
</tbody>
</table>

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - Pure Mathematics +
  - 1 AL / 2 AS subjects
  - (One of the subjects must be AL/AS Physics or AL Engineering Science)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
The Department of Electrical and Electronic Engineering

Programme: BEng in Electronic Engineering

During the last few decades, electrical and electronic engineering (EEE) has evolved into an exciting high technology discipline which covers a wide range of modern technologies such as wireless communications, multimedia technology, microelectronics, microprocessors, robotics, opto-electronics, computer networks and information technology. Advances in electrical and electronic engineering have opened exciting new technical and managerial employment opportunities in industries, businesses, financial institutions, the Government, and universities. Our Department is an exciting place where advancement of knowledge through excellence in teaching and research is the goal. Modern state-of-the-art equipment and laboratories facilitate the teaching and research activities of our students and faculty.

Degree Structure and Curriculum

All EEE students start out with the same broad fundamental courses in electronics, computer science and mathematics. As their individual interests develop, we encourage them to choose elective courses which explore specific areas of interest in greater depth.

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Computer Programming</th>
<th>Circuit Theory</th>
<th>Electronics</th>
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<tr>
<td>Communication Systems</td>
<td>Computer Networks</td>
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elective courses (such as those shown in the outer layer). By the final year, nearly all of our classes are electives. In addition, students gain valuable practical engineering experience through a final-year project personally supervised by a member of our world-renowned faculty.

**Career Prospects**

Our EEE graduates are employed in various sectors of the society, including the commercial, manufacturing and Government sectors. The list of employers includes many world-class local and overseas companies such as Motorola, Hong Kong Telecom, Hutchison Telephone, Smartone, Hong Kong Stock Exchange, Telecom Technology Center, Star TV, Fujitsu, NEC, Hewlett Packard, Varitronix, AT&T, National Semiconductor, Microsoft, Bellcore, etc.

**Professional Recognition**

Our BEng in Electronic Engineering programme is accredited by the Hong Kong Institution of Engineers (HKIE). Graduates from our programme with honours will be deemed to have satisfied the educational requirement for Corporate Membership of HKIE.

**Research Activities**

There is a wide range of active research activities within the Department that are sponsored by various parties such as the Hong Kong Research Grant Council, Hong Kong Telecom Institute of Information Technology (HKITIIT), and various industrial partners such as Motorola, Hutchison, etc.
Areas of Specialisation:

The wide range of faculty expertise and state-of-the-art facilities in the Department allow our students to specialise in a wide range of modern technologies such as integrated circuits engineering, microelectronics, information engineering, automatic control, robotics, wireless and mobile communications, etc. Specifically, the flexibility of our curriculum allows students to concentrate on one of the following streams, if they wish, as their specialty area of study:

- Integrated-Circuit Design
- Microelectronics
- Information and Signal Processing
- Communication and Network
- Photonics
- Robotics
- Biomedical Electronics.

Further Information

The Department maintains a home page on the World Wide Web at address "http://www.ee.ust.hk/eee".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  AL Pure Mathematics +
  1 AL / 2 AS subjects
  (One of the subjects must be AL/AS Physics or AL Engineering Science)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Programme: BEng in Electronic Engineering (Information and Communication Engineering)

During the last two decades, there has been a tremendous growth in information and communication technologies. Such growth has led to what is often called the Information Age where the use of computers, personal communication devices, Internet, World Wide Web and multimedia information technologies has become commonplace. Information is continuously transmitted across the globe in seconds and access to vast sources of information is instantaneously available to anyone. It is within this context that the programme of Information and Communication Engineering (EEIC) has been created. Such programme will produce engineers that are trained to develop the systems and technology which drive the information age, from the high-level design of computers and systems that relay multimedia services to the practical implementation of chips that process digital and other signals.

Degree Structure and Curriculum

All EEIC students start out with the same broad fundamental courses in electronics, computer science and mathematics. As their individual interests develop, we encourage them to choose elective courses which explore specific areas of interest in greater depth.

Each year of the three year curriculum builds upon the previous year. During the first year, students study the fundamental subjects shown in the centre of the diagram shown on the right, which are necessary for the understanding of modern information and communication technologies. The second year reinforces this foundation with the more specialised “core” courses (the middle layer) while allowing the students to explore areas
inside and outside of EEIC which interest them the most via elective courses (such as those shown in the outer layer). By the final year, nearly all of our classes are electives. In addition, students gain valuable practical engineering experience through a final-year project personally supervised by a member of our world-renowned faculty.

**Career Prospects**

Because of the explosive and growing demand for technologies such as wireless communications, Internet, high speed and broadband communication networks, EEIC graduates will be well placed for a host of exciting job opportunities that will expand as fast as the technology develops. The list of potential employers includes many world-class local and overseas companies such as Motorola, Hong Kong Telecom, Hutchison Telephone, Smartone, Hong Kong Stock Exchange, Telecom Technology Center, Star TV, Fujitsu, NEC, Hewlett Packard, Varitronix, AT&T, National Semiconductor, Microsoft, Bellcore, etc.

**Professional Recognition**

Our BEng in Electronic Engineering is accredited by the Hong Kong Institution of Engineers (HKIE). Graduates from our programme with honours will be deemed to have satisfied the educational requirement for Corporate Membership of HKIE.

**Research Activities**

There is a wide range of active research activities within the Department that are sponsored by various parties such as the Hong Kong Research Grant Council, Hongkong Telecom Institute of Information Technology (HKTIIT), and various industrial partners such as Motorola, Hutchison, etc.
Areas of Specialisation

In addition to receiving a broad-based training in relevant technologies, students can choose to specialise in one of two specialty areas, information processing or communication engineering. These undergraduate studies will draw on established areas of research excellence at HKUST such as:

- Information and Signal Processing
- Wireless and Mobile Communication
- Communication and Computer Networks
- Digital Communications
- Video and Multimedia

Further Information

The Department maintains a home page on the World Wide Web at address "http://www.ee.ust.hk/eee".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Pure Mathematics +
  - 1 AL / 2 AS subjects
  (One of the subjects must be AL/AS Physics or AL Engineering Science)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
The Department of Industrial Engineering and Engineering Management

Programme: BEng in Industrial Engineering and Engineering Management

The BEng programme in Industrial Engineering and Engineering Management prepares students for both professional practice and pursuit of postgraduate studies.

Hong Kong is positioning herself to be a leader in the service industry. It is the right time for students to concentrate their studies to improve efficiency, productivity, and safety of related operations. As we approach the 21st century, a basic understanding of how to manage a service or manufacturing organisation is a thought for the future and has great potential. The Department of Industrial Engineering and Engineering Management specialises in improving the understanding of operations, systems, and their integration to achieve a high level of productivity with the optimum use of resources.

Degree Structure and Curriculum

The Department is geared to educate the students in one of the following four concentrations:

Engineering Management: Students with an Engineering Management emphasis can expect to learn about financial engineering, statistics and operations, engineering economics, and management techniques that reflect the growing need for understanding the global supply chain.

Logistics/Transportation: Students with a Logistic/Transportation emphasis can expect to learn strategic, mathematical and economic principles for effective coordination and distribution shipment and transfer of goods with Hong Kong as the centre of global manufacturing and service in the region.
Quality/Manufacturing: Students with Quality/Manufacturing emphasis can expect to learn about effective process planning, control, and quality assurance. Manufacturing processes, statistics and operations, and human factors and ergonomics will be a part of the graduating student developing expertise.

Systems Engineering: Students with a Systems Engineering emphasis can expect to learn about issues related to information management, systems analysis, modelling and simulation, human-computer interfacing, and operations management. A systems approach to solving problems will be the core of this concentration.

The current programme includes an eight to ten weeks industrial training which will be given in the summer and winter breaks at the Industrial Training Centre of The Hong Kong Polytechnic University or other locations. A “sandwich” co-op programme may also be made available for students to spend their third year with a sponsoring firm. The students then return to HKUST for another year to complete the bachelor’s degree.

Career Prospects

After graduation, industrial engineers find employment opportunities in public and private sectors of society. They can pursue careers in both technical and managerial positions, making use of their intellectual capacity and technical skills in either manufacturing or service industries. Keeping the future of Hong Kong and South China in mind, this degree programme is designed to equip students with modern information technology based knowledge with emphasis on design and process methodologies to improve both productivity and quality.

Professional Recognition

This programme is accredited by the Hong Kong Institution of Engineers (HKIE). Graduates of the programme will become full members of the Institution upon acquiring sufficient working experience.
Research Activities

Presently, the Department has over HKD30 million in equipment and research funding, with additional money from industry as a donation. The Department has set up various laboratories for research and teaching. The Information System Laboratory, Industrial Automation Laboratory, System Design Laboratory, Human Performance Laboratory, Virtual Reality Laboratory, Quality Control Laboratory, Manufacturing System Laboratory, Precision Manufacturing Laboratory, Computer Aided Laboratory and Virtual Teaming Laboratory are all ready in operation. These laboratories house state-of-the-art equipment.

Further information

The Department maintains a homepage on the World Wide Web at address "http://www-ieem.ust.hk".

Enquiries on the programme can also be directed to the Department's Office:
Telephone: 2358 7094
E-mail: ieug@uxmail.ust.hk

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  1 AL subject + 1 AL / 2 AS subjects
(Subjects must be chosen from Applied Mathematics, Biology, Chemistry, Computer Applications, Design and Technology, Engineering Science, Mathematics and Statistics, Physics, and Pure Mathematics)

- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Programme: BEng in Industrial Engineering and Engineering Management
(Transportation Logistics Management)

The BEng programme in Industrial Engineering and Engineering Management (Transportation Logistics Management) prepares students for a career in the distribution services sector.

The distribution services sector is one of the most important industries in Hong Kong. As a major centre in the global transportation and logistics networks, Hong Kong has the busiest port terminals and the busiest international airport in the world. The new airport, the new container and air-cargo terminals, and the new rail and highway systems will further enhance Hong Kong’s world leader position in distributive services which include transportation, storage, import, export, re-export, and communications. The employment growth in the distributive services is phenomenal - the number of people engaged in this sector has grown from 450,000 in 1983 to 880,000 in 1993, representing 36% of Hong Kong’s total employment. The growth rate in this sector has been twice as much as the growth rate in the financial sector for the last few years, and will continue to grow beyond 2000.

With the advanced technology, the new management philosophy and techniques, and the globalisation of competition, the expected skills for the human resources in this sector are rapidly changing. An all-round training in information technology, service engineering, and analytical skills, is a must for being an engineer and a manager in this sector.
Degree Structure and Curriculum

The IEEM (Transportation Logistics Management) programme follows the typical 3-3 structure in HKUST: the first three semesters for broad-base knowledge to build up the foundation and the last three semesters for definitive and specialised knowledge to develop the discipline. While the programme is evolved from the first BEng degree programme in IEEM, it is a completely new design, keeping only courses related to the distributive services sector of the first programme and adding new courses from various departments. Students in this programme can expect to learn optimisation, resource planning, information technology, engineering management, operations research, and freight transportation operations. The final-year project provides a unique opportunity for students to work on real problems in Hong Kong’s distributive services sector.

Career Prospects

Despite the huge magnitude of the activities related to transportation logistics, the supply of new engineers and managers with proper training for this discipline is surprisingly small. According to a survey by the Vocational Training Council, there will be a shortage of several thousands of supervisory and managerial personnel in the next ten years.

With inputs from the industry, the BEng programme in IEEM (Transportation Logistics Management) is tailored for the needs of the sector to prepare a new generation of engineers for both technical and managerial positions. The graduates will become leaders in areas such as freight transportation, international courier services, warehousing, logistics engineering, distribution, freight forwarding, port and terminal operations, air-cargo management, and air, sea, and land transportation systems.

Research Activities

Presently, the IEEM Department has over HK$30 million in equipment and research funding, with additional money from industry as a donation. The Department has nine laboratories for research and teaching, with the Computational Transportation and Logistics Laboratory specially developed for the programme. The Department is actively interacting with the distributive services sector. The logistics forum, a regular meeting between the Department and the industry, is well received by the key players of the distributive services sector.
Further information

The Department maintains a homepage on the World Wide Web at address "http://www-ieem.ust.hk".

Enquiries on the programme can also be directed to the Department's Office:
Telephone: 2358 7097
E-mail: ieug@uxmail.ust.hk

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  1 AL subject + 1 AL/2 AS subjects
  $($Subjects must be chosen from
  Applied Mathematics, Biology, Chemistry, Computer Applications,
  Design and Technology,
  Engineering Science, Mathematics
  and Statistics, Physics, and Pure
  Mathematics$)$

- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
The Department of Mechanical Engineering

Programme: BEng in Mechanical Engineering

We live in a physical world. Turbines generate electricity. Air-conditioning systems provide comfortable indoor environment. Advanced materials give extra strength to tennis players. Production and manufacturing plants produce a variety of household appliances. Mechanical Engineering is a broad-based discipline which applies technical skills to designing and manufacturing all kinds of mechanical and thermal systems. The undergraduate programme attempts to imbue students with the broad intellectual tools and skills which are essential for professional practice as well as for advanced study. The programme emphasises a sound understanding of fundamental principles and the behaviour of engineering systems. It trains students in experimental, computational, and analytical methods and exposes them to state-of-the-art design and technology. More importantly, the programme develops a students' self-confidence, the ability of observation, analysis and decision making. It also teaches students the importance of communications, continued learning and team work.

Degree Structure and Curriculum

The three-year BEng programme in Mechanical Engineering consists of three stages.

Because of the importance of electronics, electrical technologies and computers to all future mechanical systems, all students are required to take courses in electrical technology, electronics, and computing.
Career Prospects

Mechanical engineering graduates can find job opportunities in a wide range of areas. For example, as building services engineers (building and construction industries); process engineers (computer and electronics industries); environmental engineers (energy and environment industries); design engineers (machinery, toys and garment industries); service and maintenance engineers (Mass Transit Railway and Airport); sales/marketing engineers (equipment supplies); and mechanical engineers (hospitals).

Professional Recognition

The BEng in Mechanical Engineering degree from the HKUST is accredited by the Hong Kong Institution of Engineers (HKIE). The graduates will be able to join the HKIE formal training scheme in the mechanical engineering discipline offered by major Hong Kong companies. This training plus a period of practical experience can lead to the status of Professional Engineer. A list of about 50 such companies is available upon request.

Further Information

The Department maintains a home page on the World Wide Web at address "http://www-mech.ust.hk".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  AL Pure Mathematics +
  1 AL/2 AS subjects
  (must include Physics/Engineering Science)

- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
Approximately half of Mechanical Engineering graduates each year find employment in the Building Services Industry. For booming cities in East Asia there is a great demand of engineers to design, install, operate and maintain mechanical and electrical services for large office buildings, shopping centres, hospitals, hotels, etc. Building services included air-conditioning, fire safety, vertical transport, lighting, indoor air quality, acoustics, communication, etc. Without those services, a building is just a nonfunctional empty concrete shell.

Degree Structure and Curriculum

The three-year Bachelor of Engineering programme in Mechanical Engineering (Building Services) consists of three stages. The core courses will be common with Mechanical Engineering programme, while the elective courses will be concentrated in the building services areas. The programme will remain accredited by the Mechanical Engineering discipline of HKIE.

Because of the importance of electronics, electrical technologies and information technology in building services systems, all students are required to take courses in electrical technology, electronics, and computing.

Career Prospects

Mechanical engineering graduates specialising in Building Services can find jobs as building services engineers (building and construction industries); environmental engineers (energy and environment industries); service and maintenance engineers (Mass Transit Railway and Airport); sales/marketing engineers (equipment supplies); and general mechanical engineers.
Professional Recognition

The BEng in Mechanical Engineering (Building Services) degree from the HKUST is accredited by the Mechanical Engineering Discipline of the Hong Kong Institution of Engineers (HKIE). The graduates will be able to join the HKIE formal training scheme in the mechanical engineering discipline offered by major Hong Kong Companies. This training plus a period of practical experience can lead to the status of Professional Engineer. A list of about 50 such companies is available upon request.

Further Information

The Department maintains a homepage on the World Wide Web at address "http://www-mech.ust.hk".

Admissions Requirements

- In addition to the General University Requirements, acceptable grades in:
  - AL Pure Mathematics +
  - 1 AL / 2 AS subjects
    (must include Physics/Engineering Science)
- Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.
VII. THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCE

**Degrees Offered:** Only postgraduate degrees (MA, MPhil, PhD) are offered in this School.

The mission of the School of Humanities and Social Science at the undergraduate level is to offer general education courses that seek to situate scientific, technological, and business advances within the human and social context, with the purpose of broadening students’ horizons, developing their analytical and critical skills, and promoting their awareness of themselves and the world. The School offers a wide range of courses at various levels in art history, music, film, literature, history, anthropology, philosophy, religion, psychology, sociology, political science, and economics.

To ensure a broad, well-rounded and humane education, all undergraduates are required to take at least 12 credits in the School of Humanities and Social Science. This usually translates into four courses, of which at least one must be taken from each of the two Divisions: Humanities and Social Science.
VIII. RESEARCH FACILITIES, INSTITUTES, CENTRES AND LABORATORIES

The University has established a number of research units to facilitate multidisciplinary and interdisciplinary research and to better apply University research to the social and economic development of Hong Kong.

These specialised research organisations, together with the academic departments, provide undergraduate and postgraduate students with a wide range of opportunities for participation in exciting programmes and projects that deal with the extension and application of knowledge. Several hundred research projects have been funded and are in operation.

Research units of the University include:

**Research Centre:** Responsible for the development, co-ordination and conduct of large, mission-oriented applied research projects.

**Technology Transfer Centre:** Responsible for the transfer of technology to industry and Government and for the commercialisation of products and processes developed in university research.

**Central Facilities:**
- Advanced Engineering Materials Facility
- Animal Care Facility
- China Light and Power Wind/Wave Tunnel Facility
- Computer Aided Design and Manufacturing Facility
- Electrical and Mechanical Services Facility
- Geotechnical Centrifuge Facility
- Glassblowing Facility
- Liquid Helium Facility
- Materials Characterisation & Preparation Facility
- Microelectronics Fabrication Facility
- Plant Growth Facility
**Research Institutes:**
Advanced Materials Research Institute
Advanced Manufacturing Institute
Biotechnology Research Institute
Hainan Institute
Hong Kong Telecom Institute of Information Technology
Institute for Environment and Sustainable Development
Institute for Infrastructure Development
Institute for Microsystems
Sino Software Research Institute

**Academic Research Centres:**
Analog Integrated Circuits Fast Prototyping Centre
Centre for Asia Financial Markets
Centre for Display Research
Centre for Economic Development
Cooperative Research Centre in Wireless Communication
Cyberspace Centre for Software Industry
Drug Delivery Technology Centre
HKUST Multimedia Centre
Traditional Chinese Medicine Safety Information Centre

**Laboratories:**
Joyce M. Kuok Laser and Photonics Laboratory
William Mong Semiconductor Clusters Laboratory
ZhengGe Ru Thin Film Physics Laboratory

**Others under development:**
Energy
Computation
Transportation

Each of these research units is managed by a Director who is responsible for programmes, projects, facilities and personnel. Undergraduate students should contact the Director if they wish to become involved in these programme areas.
UNIVERSITY LIBRARY

The Library is an integral component of the academic programmes, supporting the University's teaching and research in science, engineering, business and management, the humanities and social sciences. As of 1997, the Library's book, periodical, and microform collections total approximately 450,000 volumes, plus 23,000 media materials. Its electronic collections contain over 9,000 discs, including thousands of full-image journal subscriptions and conference proceedings.

In addition, the Library offers its users a learning environment rich in electronic information and services. In a sense the Library is always open in that its extensive array of electronic resources can be accessed from every corner of the campus, including all student and staff housing, twenty-four hours a day. Users can search the Library's catalog of holdings in both English and Chinese using a telnet or Web interface. The Library Web server (http://library.ust.hk) has developed into a central information hub for access to Library information, services, and resources; instructional materials; pathfinders; and Internet sites.

An experienced library staff assists users in a variety of ways, from the selection, acquisition, and cataloging of materials to making use of the collection, online searches, and interlibrary loans. There are also a fully-equipped classroom and a computer laboratory for group instruction. The University Library has a strong service orientation in order to effectively meet the information needs of its academic community.
CENTRE OF COMPUTING SERVICES AND TELECOMMUNICATIONS

The Centre of Computing Services and Telecommunications (CCST) develops and manages the computing and networking infrastructure of the University. It provides computing support to undergraduate and postgraduate teaching, and research applications in all Schools.

The HKUST computing environment is based on a distributed client-server architecture. The cornerstone is an advanced high-speed switched FDDI (Fibre Distributed Data Interface) network backbone, with maximum aggregate throughput of 3.6 gigabits per second. International Internet connection is provided via multiple high speed links. A growing number of laboratories and offices are provided with switched Ethernet or fast Ethernet connections. The network covers not only all the academic buildings but also reaches out to staff quarters and student halls. Staff and students can also get access to network services via a number of Express Stations in various campus locations, or they can connect their home computer to the campus network via dialup modem pools.

The Centre operates powerful servers to provide campus wide network services such as e-mail, network printing, World Wide Web and electronic notice board. One important characteristic of the University’s computing environment is its multimedia and Chinese-English bilingual capability. Increasingly, more network services will have these features. To support computation intensive research, the Centre provides various solutions including parallel processors, graphic processors and high-end computational workstations. All microcomputers and scientific workstations are connected to the campus network, providing desktop computing power as well as windows to a vast array of information and computing resources such as Library systems, administrative systems, academic software packages and audio/video broadcasting programmes.

The Centre also manages a number of central computing laboratories, providing PC, Macintosh and UNIX workstation facilities for teaching and student use. Extensive software training programs are also provided to assist users to get the most out of their computers.
THE LANGUAGE CENTRE

The Language Centre (LC) offers a wide range of language services to all undergraduate and postgraduate students.

As English is the medium of instruction in the University, the Language Enhancement programme aims to help students acquire the necessary English language skills to gain the maximum benefit from their undergraduate curriculum. The Language Centre also offers Business Communication programmes for the School of Business and Management, and a Technical Communication programme for the Schools of Science and Engineering.

Apart from English courses, the Language Centre also offers courses in Chinese Writing, Putonghua, Japanese, French and German.

The Language Centre has three 24-booth language laboratories, complete with advanced audio-visual and computer equipment, which are used by class groups to practise their listening, speaking and writing. For students who need further help with their writing, the English Writing Centre (a service offered by the LC) runs workshops and gives individual consultations. The LC also runs the Self-Access Centre - a well-equipped facility that provides a wide variety of materials, activities and services to aid self-directed learning in English, Putonghua and many other languages.
THE EDUCATIONAL TECHNOLOGY CENTRE

The University is committed to high standards and up-to-date methods in undergraduate and postgraduate teaching, research and publication. To this end, the Educational Technology Centre (ETC) sustains a comprehensive service for all academic and research staff.

The Audio Visual Unit looks after all centrally provided AV (audio visual) facilities in all common teaching venues including 8 lecture theatres, some 70 classrooms and 30 teaching laboratories. The Unit maintains an AV Loan Counter, and a Self Access Production area to facilitate the use of AV equipment and resources for modern teaching. The AV Production Team assists in the planning, videotaping, editing and duplication of AV materials for teaching, research, evaluation or promotional purposes.

The Graphics Unit assists in the graphic design and production of University publications, as well as research and teaching materials. Its photographic and darkroom facilities help in producing slides, overhead transparencies and prints for academic and publicity purposes. In addition, the Unit also provides high-speed, high volume reprographic and offset printing services.

In addition to these production and technical services, our Instructional Development (ID) unit organises workshops and seminars for faculty, teaching assistants, and tutors on educational issues and instructional methodologies in higher education. Topics have included learning theory, classroom delivery and management techniques, utilisation and production of instructional materials, assessment of student progress and evaluation of teaching effectiveness. The Unit serves as a resource for information on teaching methods, instructional formats and materials related to research on teaching.

As part of the University's quality assurance process, the Unit also assists in collecting and processing course evaluation data for all credit courses and English language enhancement course.
THE INDUSTRIAL TRAINING CENTRE

The Industrial Training Centre (ITC) provides practical training to engineering undergraduate students. The training programme gives students a broad and structured understanding of engineering practice. Moreover, the training also helps students satisfy the training requirements of the Hong Kong Institution of Engineers (HKIE) for registration as a Professional Engineer.

An important aspect of this training is the integration of workshop experience with knowledge acquired in classrooms and laboratories. Through the training phase, the students' understanding and appreciation of the knowledge acquired from the academic courses will be enhanced. This integration of workshop training with academic knowledge can be accomplished through curriculum planning and coordination between the departments and the ITC. The workshops are in modular form and each department works with ITC staff to design and specify a combination of modules that meets the needs of its students. Training periods for students range from 7 to 13 weeks, to cater for the specific requirements of various departments. The training modules are designed to strike a balance between the development of skills and an appreciation of engineering processes. The introductory phase of training consists of basic engineering practices, safety procedures, and the handling of hand, power and machine tools in a supervised setting. Beyond the introductory phase, training is designed to arouse the interest of students in engineering practice, to stimulate their imagination, and to help them develop their talents. This can best be accomplished in a simulated industrial-like environment. Training programmes of some departments include an integrated design-and-make project which requires application of knowledge at an intellectual level that matches their ongoing academic activities. The goal of this integrated approach is to train students to be professional engineers.

A major portion of industrial training is currently conducted at The Hong Kong Polytechnic University Industrial Centre, while safety training and other computer based training modules are conducted in-house.
THE CAD/CAM FACILITY

The CAD/CAM (Computer Aided Design and Manufacturing) Facility is a central unit to support research and teaching related activities. It focuses on multidisciplinary and application-oriented research programmes that will create impact on the manufacturing industries in Hong Kong and the neighbouring region. The Facility will provide stimulus for collaboration and interaction among HKUST, local industries and international bodies.

The Facility maintains a range of state-of-the-art equipment to promote research in the area of design and manufacturing. These include measurement equipment such as Co-ordinate Measuring Machine (CMM) and three-dimensional laser scanning system. It has a number of computer numerical control (CNC) machines and state-of-the-art CAD systems to provide a platform for CAD/CAM integration. Manufacturing facility is also enhanced by a rapid prototyping machine. Robots are used to integrate the manufacturing and assembly operation. The Facility also has strong capability in Computer Aided Engineering (CAE) with a full range of analysis and simulation software.
The University offers a range of services to students for the purpose of promoting the quality of campus life and assisting students in solving problems that are affecting their studies. Extra-curricular educational activities are also organised with the aim of broadening students' cultural and intellectual outlook as well as enhancing their social and interpersonal skills. The provision of these services, including career counselling, general counselling, student financial assistance, residential housing services, cultural, sports and physical education activities, and health services, is directed and managed by the Director of Student Affairs.

The University places great emphasis on providing a wide range of facilities that will enhance the quality of life of both resident and non-resident students. Apart from the facilities specifically created in the form of buildings, students also have the opportunity to enjoy the natural amenity of a beautiful site enhanced by landscaping, terraces, and pavilions.

COUNSELLING SERVICE

The Student Counselling Service offers assistance in many areas of student interests and concern, such as personal growth, adjustment to campus life, personal problems, and study-related issues.

CAREERS SERVICE

The Careers Centre helps students clarify their career plans and options. To assist students in their career decisions and preparation for successful job search, the Centre organises talks, exhibitions and visits, maintains close contacts with potential employers and keeps students informed of employment opportunities and market situations. The Centre also assists students in securing full-time summer and part-time employment.
PHYSICAL EDUCATION AND SPORTS

Developing physical health and fitness is as important as broadening the mental capacity and horizons of students. To this end, the University expects all students to participate in at least one organised sport or physical education activity during their years at the University. Professional coaches are available to organise and provide instruction in these activities. The University has a good provision of sports facilities. Indoor facilities are fully air-conditioned. A large multi-purpose sports hall with 1,600 square metres of floor space is designed for activities such as badminton, basketball, volleyball, handball and indoor soccer, with other areas set aside for squash, table-tennis, fencing, dance, martial arts, weight training and fitness exercises. Outdoor facilities include a 50-metre swimming pool, an Astroturf soccer pitch, a 400-metre track with 8 lanes, a hard-surface mini-soccer pitch, outdoor basketball courts and tennis courts. Facilities are also available for throwing activities such as discus, javelin and shot-putt, softball and archery.

HEALTH SERVICE

The on-campus Health Centre provides out-patient medical service and primary dental care for the students.

Health education exhibitions, video shows and seminars are also organised and presented for the benefit of students and staff alike.

RESIDENTIAL HALLS

Housing accommodation is planned for a minimum of 30% of full-time students. There are four undergraduate halls, providing residential places to 1,722 undergraduate students. The halls are located on campus in multi-storey residence buildings. Undergraduate rooms are generally shared by two students. All rooms are fully furnished and air-conditioned.

Each floor of the Residential Halls has a lounge area with an adjoining pantry. Other facilities in the complex include common rooms and snack rooms where residents and guests can meet and socialise. A laundry is also provided.

Please consult the section on “Fees, Other Expenses, and Financial Assistance” (pages 101-102) for details of Residential Hall charges.

Provisions are made for students not residing on campus to actively participate in social and sports activities so as to enhance their sense of belonging to the University community.
OTHER STUDENT AMENITIES AND SERVICES

The University provides a range of student amenity areas to enable the organisation of extra-curricular activities through which social interaction among students can be promoted and a sense of belonging cultivated. These amenities include darkroom, workshop, music and television facilities, common rooms and meeting rooms for use by all students.

A canteen and a food court with a total seating capacity for 1,600 are available. They are centrally located and a variety of services is provided. Other catering facilities include a cafeteria, a Chinese restaurant, two Western restaurants, a coffee shop and a snack shop.

Commercial facilities include a bookshop, banking services, a hair salon and a supermarket.

STUDENTS ACTIVITIES

Extra-curricular activities are organised by the Students’ Union and student societies associated with academic disciplines, arts, sports and other social interests.

The Student Affairs Office also organises extra-curricular activities and programmes such as formal dinners, competitive sports, camps, talks and seminars.

Students are encouraged to take part in activities as organisers and/or participants. Physical accommodation is provided to house student societies. Staff from the Student Affairs Office are available to guide and assist students in the operation of their societies and the organisation of activities.
XI. FEES, OTHER EXPENSES, AND FINANCIAL ASSISTANCE

Fees quoted in this section are subject to the approval of the University's Finance Committee and may be revised prior to the beginning of the 1998-99 academic year. Except for caution money, fees described below are not refundable.

TUITION AND OTHER FEES

1. Application fees: An application fee of HK$120 is charged for each application for admission made directly to the University. This fee is payable at the time of submission of the application form. For applications made through JUPAS, a fee of HK$430 is charged. The fee will be collected by the JUPAS Office on behalf of the participating institutions.

2. Tuition fee: The tuition fee for undergraduate students admitted for the academic year 1998-99 is expected to be HK$44,500 per annum. The fee is to be paid in two equal instalments before the beginning of each semester.

3. Fees for visiting overseas students:
   Application fee - $120
   Tuition fee for visiting overseas undergraduate students - $2,230 per credit.

4. Caution money: Each new student will be required to pay a deposit of HK$300 as caution money on first registration. Charges will be made against this deposit if there are any unpaid claims against the student, such as outstanding library dues. The balance will be transferred towards the graduation fee, or refunded if the student leaves the University before graduation.

5. Students' Union fee: Students joining the Students' Union are required to pay an initial entry fee and thereafter an annual subscription. These will be set by the Union and collected by the University on behalf of the Union.

6. Late charges: Students may be required to pay late charges for failure to complete certain University procedures by stipulated deadlines. These will include delays in paying tuition fees and completing registration procedures, and overdue library books. Late charges will be levied in accordance with the rules and regulations set by the respective offices.
7. **Hall charges**: The hall charge for 1998-99 is approximately $9,200 per person in double rooms in the undergraduate halls for a residential year of about 280 days from September 1998 to June 1999. Hall charges are to be paid in two instalments and do not include the cost of meals.

8. **Other small fees and charges**: There are other fees and charges such as the graduation fees, transcript fees, and replacement charges for lost student identity cards. Detailed information will be available in the *Academic Calendar* or from the various administrative offices concerned.

9. **Estimated total cost**: The total cost of living and studying at the University is expected to be about $100,000 for two semesters and the winter session from early September to early June, including the items mentioned above. This figure also includes the cost of food and drink, textbooks, stationery, sports equipment and clothing.

**FINANCIAL ASSISTANCE**

The sources of financial support for Hong Kong students include the following:

**Government Grant and Loan Scheme**

Full-time students at publicly funded tertiary institutions who have the right of abode in Hong Kong or have resided or have had their home in Hong Kong continuously for three complete years immediately prior to the commencement of their programme of study are eligible to apply for financial aid under a Government student finance scheme. The scheme is administered by the Government Student Financial Assistance Agency.

Financial assistance is offered in the form of grants and/or loans. Grants are given for tuition fee and academic expenses; loans are approved for living expenses. Awards are means-tested so that the amount awarded is related to family disposable income. Students are expected to repay their loans at a low interest rate within a specified period after graduation or upon leaving the University.

Application forms are available either from the Government Student Financial Assistance Agency at 9/F, National Mutual Centre, 151, Gloucester Road, Wanchai, Hong Kong, or from the Student Affairs Office of the University.
Students with financial difficulties are urged to apply for assistance under this scheme at the beginning of the academic year. Further details are available at the Student Affairs Office.

**University Loans and Bursaries**

Students with additional financial needs may apply for loans and bursaries administered by the University. In general, these funds are used to supplement, but not substitute for, Government financial assistance.

Details of loans and bursaries are available from the Student Affairs Office.

**Scholarships and Prizes**

The University administers a number of scholarships and prizes on behalf of individual and corporate donors. Most of them are awarded to students, without application, solely on the basis of academic merit and the recommendations of a School or department. Other scholarships have conditions specified by the donor. Further details are available at the Student Affairs Office.
THE ACADEMIC YEAR 1998-99

The academic year of the University begins on 1 July and ends on 30 June of the following year. It includes two semesters and two sessions. Normally, the Fall Semester commences in early September and the Spring Semester begins around early February. Each semester has fourteen weeks for scheduled classes. Immediately following the end of the 14th week there is a short study break followed by a week devoted to examinations. There is a one-week break in the Spring Semester around Easter. The Winter Session is scheduled between the two semesters for special academic programmes, research symposia, and other activities. The Summer Session bridges the end of the Spring Semester and the beginning of the following Fall Semester. For most students, attendance for the Winter and Summer sessions is not required.

Semester dates for the year 1998-99 provisionally will be:

- Fall Semester: 1 September 1998 to 19 December 1998
- Winter Session: 4 January 1999 to 30 January 1999
- Spring Semester: 1 February 1999 to 28 May 1999 (extended to 27 May 1999)

* The dates of the Spring Semester include a mid-semester break from 1 April 1999 to 7 April 1999.

THE UNIVERSITY CALENDAR FOR 1998-99

Detailed information about the University will be contained in the University Calendar for 1998-99, which will be published in Summer 1998. Each new registered student will be provided with a free copy of the Calendar.
GENERAL ENQUIRIES

Students requiring advice or assistance on application procedures, choice of courses, entrance requirements or other related matters are welcome to visit the Admissions, Registration and Records Office from Mondays to Fridays during the following hours:

9am - 12:30pm
2pm - 5pm

and on Saturdays during the following hours:

9am - 12 noon

All enquiries should be addressed to:

The Director
Admissions, Registration and Records Office
The Hong Kong University of Science and Technology
Clear Water Bay
Kowloon
Hong Kong

Telephone: (852) 2623 1118
Facsimile: (852) 2358 0769
E-mail Address: UGADMIT@USTHK.UST.HK

Information on the University can also be found at the following address on the World Wide Web:

http://www.ust.hk

while information related to admissions can be found at:

http://www.ab.ust.hk/arr
Appendix I:
Summary Chart of General Undergraduate Entrance Requirements

Do you have:

Yes
HKCEE Pass in Chinese?

Yes
HKCEE Passes in:
Mathematics and English Language (Syll. A or B)?

HKCEE Pass in an alternative language

No

HKCEE Pass at the first sitting?

No

HKCEE 7 Passes in the first attempts with at least 5 at sitting?

HKCEE 7 Passes at the first attempt?

No

No

Do you meet the General University Requirements?

Do you meet the Departmental Entrance Requirements?

Yes

No

Do you have:

Yes
HKALE Pass in AS-Level Chinese Language and Culture or Liberal Studies (CLC)?

No

HKALE Pass in A-Level Chinese Literature?

Yes

HKALE Passes in:
2 A-Level subjects, or
1 A-Level + 2 AS-Level subjects?

No

At the same sitting as CLC, HKALE Passes in:
2 other A-Level subjects, or
1 A-Level + 1 AS-Level subjects, or
3 AS-Level subjects?

Yes

HKALE Pass in AS-Level Use of English?

No

Yes

Do you have equivalent qualifications as specified on Page?

No

Do you meet the Departmental Entrance Requirements? (Please refer to Departmental Requirements)

Yes

No

Unless otherwise specified, AS-Level subjects referred to above exclude Use of Language and Culture, and Liberal Studies.

* Subject to approval, applicants without either of these subjects but have HK may also be considered.
## Appendix II: Programmes offered in 1998-99

<table>
<thead>
<tr>
<th>School of Science</th>
<th>Programme Code</th>
<th>Programme Title</th>
<th>Award</th>
<th>Abbreviation</th>
<th>Planned Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>5115</td>
<td>Biochemistry</td>
<td>BSc BICH</td>
<td></td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>5141</td>
<td>Biology</td>
<td>BSc BIOL</td>
<td></td>
<td>90</td>
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<tr>
<td>5177</td>
<td>Chemistry</td>
<td>BSc CHEM</td>
<td></td>
<td>86</td>
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</tr>
<tr>
<td>5218</td>
<td>Mathematics</td>
<td>BSc MATH</td>
<td></td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>5244</td>
<td>Physics</td>
<td>BSc PHYS</td>
<td></td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>5256</td>
<td>Applied Physics</td>
<td>BSc APHY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(With options in: Computational Physics, Laser and Optical Physics and Materials Physics)</td>
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</table>

<table>
<thead>
<tr>
<th>School of Engineering</th>
<th>Programme Code</th>
<th>Programme Title</th>
<th>Award</th>
<th>Abbreviation</th>
<th>Planned Intake</th>
</tr>
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<tbody>
<tr>
<td>5311</td>
<td>Chemical Engineering</td>
<td>BEng CENG</td>
<td></td>
<td>25</td>
<td></td>
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<tr>
<td>5323</td>
<td>Chemical and Environmental Engineering</td>
<td>BEng CIEV</td>
<td></td>
<td>15</td>
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<tr>
<td>5335</td>
<td>Chemical and Polymer Engineering</td>
<td>BEng CPEO</td>
<td></td>
<td>15</td>
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<tr>
<td>5361</td>
<td>Civil and Environmental Engineering</td>
<td>BEng CIVL</td>
<td></td>
<td>25</td>
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<tr>
<td>5373</td>
<td>Civil and Structural Engineering</td>
<td>BEng CIVL</td>
<td></td>
<td>95</td>
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</tr>
<tr>
<td>5464</td>
<td>Computer Engineering</td>
<td>BEng CPENG</td>
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<td>118</td>
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<tr>
<td>5414</td>
<td>Computer Science</td>
<td>BEng COMP</td>
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<td>80</td>
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<tr>
<td>5426</td>
<td>Computer Science (Information Engineering)</td>
<td>BEng CSIE</td>
<td></td>
<td>40</td>
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<tr>
<td>5438</td>
<td>Computer Science and Computer Engineering</td>
<td>BEng CSCE</td>
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<tr>
<td>5517</td>
<td>Electronic Engineering</td>
<td>BEng ELEC</td>
<td></td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>5529</td>
<td>Electronic Engineering</td>
<td>BEng ELEC</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Information and Communication Engineering)</td>
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<td></td>
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<td></td>
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<tr>
<td>5567</td>
<td>Industrial Engineering and Engineering Management</td>
<td>BEng IEEM</td>
<td></td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>5579</td>
<td>Industrial Engineering and Engineering Management (Transportation Logistics Management)</td>
<td>BEng IETM</td>
<td></td>
<td>30</td>
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</tr>
<tr>
<td>5610</td>
<td>Mechanical Engineering</td>
<td>BEng MECH</td>
<td></td>
<td>60</td>
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<tr>
<td>5622</td>
<td>Mechanical Engineering (Building Services)</td>
<td>BEng MEBS</td>
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<td>30</td>
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<table>
<thead>
<tr>
<th>School of Business and Management</th>
<th>Programme Code</th>
<th>Programme Title</th>
<th>Award</th>
<th>Abbreviation</th>
<th>Planned Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>5713</td>
<td>Accounting **</td>
<td>BBA ACCT</td>
<td></td>
<td>130</td>
<td></td>
</tr>
</tbody>
</table>

* BSc - Bachelor of Science  
BEng - Bachelor of Engineering  
BBA - Bachelor of Business Administration  
** Applicants have two routes to enter the BBA Accounting programme. Please read P. 72 under the section on the Department of Accounting.
Appendix III: Location Map
Appendix IV: Campus Plan