Principal Officers of the University

The Chancellor : His Excellency Sir David WILSON, GCMG.
The Chairman of the Council : Sir Sze-yuen CHUNG, GBE, PhD, FEng, JP.
The Vice-Chairman of the Council : The Honourable CHENG Hon-kwan, OBE, JP.
The Treasurer of the Council : The Honourable LAU Wah-sum, OBE, JP.
The Vice-Chancellor and President : Professor Chia-Wei WOO, BS, MA, PhD.
The Pro-Vice-Chancellor for Academic Affairs : Professor Chih-Yung CHIEN, BS, MS, PhD.
The Pro-Vice-Chancellor for Administration and Business : Mr Ian F.C. MACPHERSON, OBE, MA.
The Pro-Vice-Chancellor for Research and Development : Professor Thomas E. STELSON, BS, MS, DSc.

The Hong Kong University of Science and Technology

Prospectus for entry in September 1993

This Prospectus is published for the guidance of students who wish to enter the University in September 1993. The information in the publication is correct at the time of going to press but all matters contained in the Prospectus are subject to change from time to time both before and after admission. The University reserves the right in every case at its discretion and for any reason to alter or not to offer courses or parts of courses. The Prospectus does not form any part of a contract between any person and the University.

An Undergraduate Prospectus in Chinese will be produced at a later date and will be available on request.

All enquiries should be addressed to:

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

Telephone: 358 6622
Facsimile: 358 0769
Dear Applicants,

On 8 November 1989, the Prince of Wales came out to Clear Water Bay Peninsula to lay the foundation stone for the Hong Kong University of Science and Technology. More than 500 young students, representatives from secondary schools throughout the Territory, took part in this memorable event. A new university was to be built, dedicated to the education of Hong Kong’s future leaders, and to the economic development of the Territory.

Why did we invite these young guests to participate in the ceremony? Our sole aim was to inform you, the young people of Hong Kong, that this University is built for you and you alone.

As we approach the day when our third class of students will apply to join us on our magnificent campus, we have more to say to our young friends.

The purpose of this Prospectus, then, is to inform you and your parents about the programmes offered by our different Schools and Departments, what kinds of students we are looking for, how our courses will be taught, and the campus activities in which you may wish to participate.

If you are curious about a wide range of topics, capable of hard work, compassionate, and enthusiastic about life in general, you will find the challenges you are looking for at HKUST.

Students entering in the initial years will blaze an exciting new trail for others to follow. As HKUST graduates, you will become cultured individuals endowed with specific knowledge relevant to the Territory’s economic and social well-being. With your hands on the present and your eyes on the future, you will build a better tomorrow for yourselves and for all of us—the people of Hong Kong.

Chia-Wei WOO
Vice-Chancellor and President
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.

~ The University Ordinance

I. THE UNIVERSITY

The Hong Kong University of Science and Technology (HKUST) was incorporated in April 1988 as a publicly funded university. It was established to be a world-class technological research university dedicated to the advancement and dissemination of learning and to research scholarship. Its graduates will be men and women of mature judgement and generous spirit who will contribute to Hong Kong's economic and social well-being and promote research, development, and entrepreneurship in the Asia-Pacific region.

To accomplish these goals, HKUST places emphasis on teaching - the dissemination of knowledge, on research - the creation of knowledge, and on service - the application of knowledge.

The University comprises the School of Science, the School of Engineering, the School of Business and Management, and the School of Humanities and Social Science. The first three Schools offer first-degree undergraduate programmes and postgraduate programmes through to the doctorate, while the School of Humanities and Social Science offers only advanced studies leading to postgraduate degrees up to the doctorate. At the undergraduate level, the School of Humanities and Social Science provides general education in the humanities and social sciences and in English communication skills to students in the other three Schools.

Several Research Institutes have been established to promote interdisciplinary research and collaboration among the different Schools and Departments. The Research Centre is building strong connections with the private and public sectors through contractual and applied research. Extensive interaction with industry at the undergraduate and postgraduate levels is also being developed.

The medium of instruction is English.
The Campus

The campus occupies a 60-hectare site of sweeping beauty 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, looking east and northeast toward Port Shelter and the Sai Kung area. The main academic complex is situated on the highest level of the slope, while student residential halls, outdoor sports facilities, and other student amenities are close to the water and the natural marina.

The Royal Hong Kong Jockey Club has generously donated a total of HK$1.926 billion towards the capital construction costs, and is also responsible for managing the overall construction project. Government’s share of the construction costs is HK$1.622 billion.

The campus is being built in three phases. Phase I was completed in August 1991 with a capacity of 2,000 full-time equivalent (FTE) undergraduate and postgraduate students. Phase II, to bring capacity to about 7,000 FTE students, will be completed by 1993. With the planned completion of Phase III in 1996 (contingent upon Government’s approval for construction funds), the University will be able to accommodate a student body of 10,000 FTE students.

Academic Staff

The University recruits worldwide for academic staff who have achieved excellence in their respective fields and are highly respected as both teachers and researchers. They include both established and promising younger scholars who have demonstrated a high degree of professional competence. 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.

These men and women care about Hong Kong, its people and its future. Most importantly, they care about their students.

The University began instruction in 1991 with more than 100 academic staff, a large percentage of whom are in senior positions. In 1992 more than 200 academics will have been appointed and eventually the academic staff will grow to more than 900 before the turn of the century.

Students

The University seeks highly qualified and motivated young men and women who have wide interests and have received a well-rounded broad-based secondary education. They should be active participants rather than spectators in diverse activities, and possess great potential in addition to having achieved good grades.

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.

Projected Student Numbers

According to current projections, the University will admit 1,400 undergraduate and approximately 350 postgraduate students in 1993. A total of 3,450 full-time equivalent students will be registered in 1993. When fully established it is projected that the University will admit approximately 2,750 undergraduate and 700 postgraduate students annually to the four Schools.
**Undergraduate Programmes**

The undergraduate programmes offered by the University involve students attending full time for three academic years. The University curriculum is founded on a credit-based system. In keeping with the University's policy of providing specialist training with a generalist outlook, undergraduates will take about two-thirds of their credits in their chosen Schools. In addition, students are required to take at least 12% of their courses in the School of Humanities and Social Science. The remaining credits are spread over courses offered by Departments in other Schools. For graduation purposes students will need to accumulate a total of 100-105 course credits.

As the University is being constructed in phases, the Schools are introducing degree programmes in their respective Departments over a period of three years. The School of Humanities and Social Science offers general education for all undergraduates in the other three Schools and accepts no first-degree students of its own.

Based on current planning, by 1993 all of the following first-degree programmes will be offered:

**School of Science**
- Bachelor of Science (BSc) (3 years)
  - Biochemistry
  - Biology
  - Chemistry
  - Mathematics
  - Physics

**School of Engineering**
- Bachelor of Engineering (BEng) (3 years)
  - Chemical Engineering
  - Civil and Structural Engineering
  - Computer Science
  - Electrical and Electronic Engineering
  - Industrial and Manufacturing Engineering
  - Mechanical Engineering

**School of Business and Management**
- Bachelor of Business Administration (BBA) (3 years)
  - Accounting
  - Business Information Systems
  - Economics
  - Finance
  - Management
  - Marketing

- Bachelor of Science (BSc)
  - Economics

There will also be joint degrees offered by agreements between Departments and Schools. For details regarding the various Departments, please refer to appropriate sections of this Prospectus.

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 Prospectus for further details.
II. UNIVERSITY ENTRANCE REQUIREMENTS

General Undergraduate Entrance Requirements

To qualify for admission to the University, applicants must:

(a) normally be at least 17 years of age by the first day of the academic year to which they are seeking admission;

(b) meet the general entrance requirements of the University and the requirements of the particular programme or programmes for which they are applying; and

(c) apply on the prescribed form before the application deadline.

Entry to an undergraduate programme of study at the Hong Kong University of Science and Technology requires prospective students to satisfy both general University and specific departmental entrance requirements.

To satisfy the general requirements an applicant is required to obtain:

(a) passes in at least seven subjects in the Hong Kong Certificate of Education Examination at the first and second attempts, with passes in at least five of these subjects at a single sitting, and

   i) three of these subjects must be Mathematics, English Language, and a second language, either Chinese or an alternative language,

   ii) English Language (Syllabus B) must have been obtained at grade D or above, or equivalent, and

   iii) at least two subjects must have been obtained at grade C or above; and

(b) passes in at least three subjects in the Hong Kong Advanced Level Examination; and

(c) a pass at Grade D or above in the Use of English Examination.

Entrance Requirement Equivalents

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

(a) the General Certificate of Secondary Education, or the General Certificate of Education, with passes in at least seven subjects at the Ordinary Level including Mathematics, English Language, and a language other than English, and at least three subjects at the Advanced Level (with two Advanced Supplementary passes being regarded as the equivalent of one Advanced Level pass);

(b) a degree awarded after examination by a university or other institution recognised by this University;

(c) a professional diploma, higher diploma, higher certificate, or diploma from a polytechnic or recognised tertiary college in Hong Kong;
(d) an International Baccalaureate;
(e) an equivalent or higher level qualification approved by the Senate for this purpose.

**English Language Requirement Equivalents**

As an alternative to the English Language (Syllabus B) of the Hong Kong Certificate of Education Examination required at Grade D or above, one of the following examinations will be acceptable:

a) English Language (Syllabus A) of the Hong Kong Certificate of Education Examination - Grade B or above;

b) English Language of the Hong Kong Higher Level Examination - Grade D or above;

c) English Language of the General Certificate of Education Examination (Ordinary Level) - Grade C or above;

d) English Language of the General Certificate of Secondary Education - Grade C or above.

**Mature Applicants**

Applicants who do not satisfy the general entrance requirements or the programme requirements of the University but are aged 25 or over by the first day of the academic year in which admission is sought may be granted exemption from the University Entrance Requirements provided they can demonstrate aptitude and suitability for admission to a particular programme of study.

**Future University Entrance Requirements**

The University will introduce new entrance requirements for students to be admitted to undergraduate programmes in 1994 as a result of change in the Sixth Form curriculum from 1992 onwards.

The new entrance requirements for admission to undergraduate programmes of the University for 1994/95 will replace the requirement for passes in at least three Advanced Level Examination subjects with:

- either: obtain Grade E or above in the same sitting of one AL subject + (either Chinese Language and Culture, or Liberal Studies) + two AS subjects,
- or: obtain Grade E or above in the same sitting of two AL subjects + (either Chinese Language and Culture, or Liberal Studies);
- and: a pass at Grade D or above in the Use of English Examination.

The University’s new entrance requirements for 1994 are included in this Prospectus in order to provide guidance in subject selection for students who may seek admission to the University in future years.

**Departmental Entrance Requirements**

In addition to the general requirements, students must also satisfy entrance requirements for their desired programmes of study. These are specified in the relevant departmental sections of this Prospectus.
III. APPLICATION AND SELECTION PROCEDURES

Undergraduate programmes available 1993

In the September of 1993 the University will admit students to the following undergraduate programmes:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Title of Course</th>
<th>Abbreviated Title</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSc</td>
<td>Biochemistry</td>
<td>BICH</td>
<td>E420</td>
</tr>
<tr>
<td>BSc</td>
<td>Biology</td>
<td>BIOL</td>
<td>E430</td>
</tr>
<tr>
<td>BSc</td>
<td>Chemistry</td>
<td>CHEM</td>
<td>E440</td>
</tr>
<tr>
<td>BSc</td>
<td>Mathematics</td>
<td>MATH</td>
<td>E460</td>
</tr>
<tr>
<td>BSc</td>
<td>Physics</td>
<td>PHYS</td>
<td>E480</td>
</tr>
<tr>
<td>BEng</td>
<td>Chemical Engineering</td>
<td>CENG</td>
<td>E320</td>
</tr>
<tr>
<td>BEng</td>
<td>Civil and Structural Engineering</td>
<td>CIVL</td>
<td>E330</td>
</tr>
<tr>
<td>BEng</td>
<td>Computer Science</td>
<td>COMP</td>
<td>E340</td>
</tr>
<tr>
<td>BEng</td>
<td>Electrical &amp; Electronic Engineering</td>
<td>ELEC</td>
<td>E350</td>
</tr>
<tr>
<td>BEng</td>
<td>Industrial and Manufacturing Engineering</td>
<td>INMA</td>
<td>E360</td>
</tr>
<tr>
<td>BEng</td>
<td>Mechanical Engineering</td>
<td>MECH</td>
<td>E370</td>
</tr>
</tbody>
</table>

School of Business and Management

<table>
<thead>
<tr>
<th>Degree</th>
<th>Title of Course</th>
<th>Abbreviated Title</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBA</td>
<td>Accounting</td>
<td>ACCT</td>
<td>E220</td>
</tr>
<tr>
<td>BBA</td>
<td>Business Information Systems</td>
<td>BINF</td>
<td>E230</td>
</tr>
<tr>
<td>BBA</td>
<td>or BSc Economics</td>
<td>ECON</td>
<td>E240</td>
</tr>
<tr>
<td>BBA</td>
<td>Finance</td>
<td>FINA</td>
<td>E250</td>
</tr>
<tr>
<td>BBA</td>
<td>Management</td>
<td>MGMT</td>
<td>E260</td>
</tr>
<tr>
<td>BBA</td>
<td>Marketing</td>
<td>MARK</td>
<td>E270</td>
</tr>
</tbody>
</table>

All programmes are of three years’ duration and involve full-time study at the University.

Degree Titles

Undergraduate courses in the School of Science lead to the degree of Bachelor of Science - BSc.

Undergraduate courses in the School of Engineering lead to the degree of Bachelor of Engineering - BEng.

Undergraduate courses in the School of Business and Management lead to the degree of Bachelor of Business Administration - BBA, or Bachelor of Science - BSc.

Application for Admission in 1993 Through JUPAS

In the Autumn of 1990 the “Joint University and Polytechnic Admissions System” (JUPAS) was introduced. This system enables Secondary 6 students in Hong Kong schools to apply for admission to first-degree programmes at one or more of the following six member institutions of JUPAS:

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

For 1993 admission through JUPAS, the JUPAS Office will, in September 1991, provide the secondary schools of Hong Kong with the appropriate application forms, copies of the JUPAS Guide and the prospectuses of the six 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. An application fee of HK$250 will be payable to the JUPAS Office by all applicants.

Timetable of the JUPAS 1991-93 Exercise

The following are important dates for the process of 1993 admission. It is included here to illustrate the admission process. JUPAS may make adjustments to the timetable in future years.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 November 1991</td>
<td>Closing date for applications for admission.</td>
</tr>
<tr>
<td>Early December 1991</td>
<td>Applicants receive checklists of their personal data through schools.</td>
</tr>
<tr>
<td>14 December 1991</td>
<td>Last day for applicants to report errors in checklists to JUPAS Office through schools.</td>
</tr>
<tr>
<td>13 January 1992</td>
<td>Schools receive school principal's report forms.</td>
</tr>
<tr>
<td>28 February 1992</td>
<td>Last day for schools to return principal's reports.</td>
</tr>
<tr>
<td>January to May 1992</td>
<td>Interviews and tests.</td>
</tr>
<tr>
<td>5 June 1992</td>
<td>JUPAS Office sends letters to applicants selected in Level 1 Round 1 exercise.</td>
</tr>
<tr>
<td>13 June 1992</td>
<td>Last day for applicants to send replies to Level 1 Round 1 offers to JUPAS Office.</td>
</tr>
<tr>
<td>15 July 1992</td>
<td>JUPAS Office sends letters to applicants selected in Level 1 Round 2 exercise.</td>
</tr>
<tr>
<td>22 July 1992</td>
<td>Last day for applicants to send replies to Level 1 Round 2 offers to JUPAS Office.</td>
</tr>
<tr>
<td>August to early September 1992</td>
<td>Subsequent rounds of selection for firm offers from CUHK. Selected applicants receive letters from CUHK.</td>
</tr>
<tr>
<td>Late February 1993</td>
<td>Applicants receive, through schools, checklists of their personal data.</td>
</tr>
<tr>
<td>31 March 1993</td>
<td>Last day for applicants to report errors in checklists to JUPAS Office. Also last day for applicants to send requests for changes of priority of choices of study programmes and/or of conditional offers accepted and/or for deletions of choice of a study programme in person to JUPAS Office.</td>
</tr>
<tr>
<td>19 July 1993</td>
<td>JUPAS Office sends letters to applicants confirming conditional offers.</td>
</tr>
<tr>
<td>24 July 1993</td>
<td>Last day for applicants to send replies to confirmed offers in person to JUPAS Office.</td>
</tr>
<tr>
<td>10 August 1993</td>
<td>JUPAS Office sends letters to applicants selected in Level 2 Round 1 exercise.</td>
</tr>
<tr>
<td>14 August 1993</td>
<td>Last day for applicants to submit replies to offers made in Level 2 Round 1 exercise in person to JUPAS Office.</td>
</tr>
<tr>
<td>31 August 1993</td>
<td>JUPAS Office sends letters to applicants selected in Level 2 Round 2 exercise.</td>
</tr>
<tr>
<td>3 September 1993</td>
<td>Last day for applicants to send replies to offers made in Level 2 Round 2 exercise in person to JUPAS Office.</td>
</tr>
<tr>
<td>September 1993 and onwards</td>
<td>Subsequent rounds of selection by individual institutions. Selected applicants receive letters direct from the institutions concerned.</td>
</tr>
</tbody>
</table>

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*Application for Direct Admission in 1993*

Applicants who are not eligible to apply for admission through the “Joint University and Polytechnic Admissions System” (JUPAS) are welcome to apply directly to the University.

Copies of the Undergraduate Prospectus and application forms will be available from 1 October 1992 for entry in September 1993 at:

- University Admissions Office
- The Hong Kong University of Science and Technology
- Clear Water Bay
- Kowloon
- Hong Kong.
The completed application form should be returned to the University at the above address by 30 November 1992 together with a copy of the bank pay-in-slip confirming that the application fee of HK$120 has been paid into the bank account of "The Hong Kong University of Science and Technology" through a branch of one of the following banks: Bank of China - Hong Kong Branch; Hang Seng Bank Ltd.; or Hong Kong and Shanghai Banking Corporation Ltd., using the pay-in slips provided by the University.

The application form allows the applicant to select up to three degree programmes of study at the University. The selected programmes should be listed in order of preference on the application form. Subsequent changes are not normally permitted. Requests for change can only be made by writing to the University Admissions Office.

Selection Procedures

As stated earlier in this Prospectus, and it is worth repeating, the University seeks highly qualified and motivated young men and women who have wide interests and have received a well-rounded, broad-based 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 17). 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 between 1 January 1993 and 31 March 1993. Firm offers and some conditional offers will be made to successful applicants within one month.
of the interview. The conditional offers will specify the requirements that will need to be met to gain admission to the chosen programmes of study. 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 well-qualified candidates will gain admission.

Details of the application and selection procedures have been given previously. 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 not be able to enter the first year at HKUST. Prospective overseas undergraduate students should first write to the University Admissions Office, providing full details of their educational qualifications so that an initial assessment may be made as to their entry qualifications.

If that assessment indicates that the requirements may be met, the appropriate forms will be sent to the prospective student. These should be returned to the University Admissions Office together with a bank draft to cover the application fee of HK$120. 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. In 1993-94 fees for local students will amount to HK$17,000. 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$36,000 per academic year is likely to be required for undergraduate study.

The University is unable to act as a guarantor or otherwise to assist students in making arrangements for entry to Hong Kong. Overseas applicants should make their own arrangements to obtain a student visa by contacting the nearest British Consulate, High Commission or Visa Office in their own country.

Alternatively, prospective overseas applicants may write to the Hong Kong Immigration Department, 7 Gloucester Road, Wanchai, Hong Kong for advice.

**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 post-secondary institution unless they have obtained approval, in writing, from the University. Students should note that student enrolment lists will be compared with those of other post-secondary institutions from time to time. If students are found to be registered elsewhere on a programme for another qualification they may be required to discontinue their studies at this University.
Admission Enquiries

Students requiring advice or assistance on application procedures, choice of programmes, entrance requirements or other related matters are welcome to visit, phone or write to the University Admissions Office which is open 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 of Admissions
Registration and Records
The Hong Kong University of Science and Technology
Clear Water Bay
Kowloon
Hong Kong

Telephone: 358 6622
Facsimile: 358 0769
IV. THE SCHOOL OF SCIENCE

Degree offered:
Bachelor of Science (BSc) with Honours

The School of Science comprises five Departments: Biochemistry, Biology, Chemistry, Mathematics, and Physics. When fully operational, the School will enrol 25% of the University’s undergraduates and approximately 23% of the postgraduates.

All five Departments were inaugurated in the fall of 1991 with simultaneous intake of undergraduate and postgraduate students. All Departments in the School offer first-degree programmes leading to the BSc degree, and postgraduate programmes leading to the master’s and doctoral degrees.

In keeping with the University’s general philosophy of providing specialised training with a generalist outlook, undergraduates take no more than two-thirds of their credits in their major School. In addition, students are required to take at least 12% of their subjects in the School of Humanities and Social Science. The remaining credits are spread over courses offered by Departments in other Schools.

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

Degree offered: BSc in Biochemistry

Biochemistry is the study of biological molecules such as proteins, nucleic acids, lipids etc. which form the morphological structures represented by 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.

I hope mankind will be able to end the dangers threatening us and to progress while preserving all that makes us human.

~ Andrei Sakharov

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12) candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in at least three of the four subjects: Biology, Chemistry, Physics, and Pure Mathematics. Students deficient in one of these subjects may be required to take remedial work in the first year of the degree programme.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

Degree Structure

The objectives of the Bachelor of Science programme 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.

Second-year courses will include genetic engineering, protein chemistry, and membranes and cellular metabolism. In the final year, in addition to lecture courses, 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 topics of biotechnological developments.

Practical laboratory classes corresponding to the lecture sessions will be required in the first two years.

The most incomprehensible thing about the world is that it is comprehensible.

~ Albert Einstein
The Department of Biology

Degree offered: BSc in Biology

The study of biology covers a wide range of systems at all levels of organisation, ranging from cells and molecules to organs and populations of organisms, both plant and animal. The research and teaching programmes are designed according to the levels of biological organisation, with major emphasis on molecular and cellular levels. Research areas within the Department include molecular biology, plant and animal physiology, neurobiology and marine biology.

The Department also contributes to the research and development programmes of the Biotechnology Research Institute - a campus-wide interdisciplinary research institute.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in at least three of the four subjects: Biology, Chemistry, Physics, and Pure Mathematics. Students deficient in one of these subjects may be required to take remedial work in the first year of the degree programme.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

Degree Structure

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, students are required to take a set of core subjects, including introductory biochemistry, introduction to genetics, cell biology, developmental biology, microbiology, animal and plant physiology, and ecology and marine biology. Laboratory work associated with biochemistry, cell and developmental biology, microbiology and physiology are also required, as are introductory, intermediate and advanced seminar courses designed to enhance the students' communicative skills.

During the third year, the student is required to select an area of concentration among one of the major research areas within the Department. A one-year laboratory project under the supervision of an academic adviser as well as a dissertation based on the project are required prior to graduation.

Scientists... peeping tories at the keyhole of eternity.

- Arthur Koestler
The Department of Chemistry

Degree offered: BSc in Chemistry

Chemistry is the science which deals with the composition and properties of substance, and with the reactions by which substances are produced or converted into other substances. It is traditionally divided into four mainstream areas: analytical chemistry, organic chemistry, inorganic chemistry, 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.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12) candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in at least three of the four subjects: Biology, Chemistry, Physics, and Pure Mathematics. Students deficient in one of these subjects may be required to take remedial work in the first year of the degree programme.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

Degree Structure

The three-year programme leading to the Bachelor of Science degree is designed to provide students with a strong theoretical and practical foundation in the four mainstream areas of chemistry: analytical, organic, inorganic, and physical. Introductory courses in these areas are required of all first-degree students throughout the three years.

Students may choose a general programme tailored to their individual interests, or may specialise in one area by taking additional advanced course work and participating in approved research projects. Though this is not required for graduation, students are encouraged to complete a final-year research project under the supervision of individual academic advisers.
The Department of Mathematics

Degree offered: BSc in Mathematics

There are two categories of first-degree programmes in the Department of Mathematics: the programme in Pure and Applicable Mathematics, and the programme in Mathematical Sciences and Applications. Both programmes will lead to the Bachelor of Science degree in three years.

Generally speaking, students in the Pure and Applicable Mathematics programme are interested mainly in the mathematical contents of the subject matter, while students of Mathematical Sciences and Applications are more interested in the scientific contents of the subject. The Mathematical Sciences and Applications programme is usually an interdisciplinary study undertaken in conjunction with another Department in any of the three Schools. In both the design of interdisciplinary undergraduate programmes and research, the Department of Mathematics will collaborate closely with many Departments in the University, based on the interests of students and academic staff.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12) candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Pure Mathematics, Physics, and at least one other Advanced Level subject.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in the examinations taken.

Degree Structure

For the Bachelor of Science programmes in Pure and Applicable Mathematics and in Mathematical Sciences and Applications, all students are required to take classes in multivariable calculus and linear algebra in the first year, and a one-year course in real analysis during the second year of study.

In addition, students in Pure and Applicable Mathematics are required to study abstract algebra, differential geometry and topology plus three courses at a more advanced level and selected courses in physical sciences and engineering.

For those pursuing a degree in Mathematical Sciences and Applications in conjunction with another Department, special courses of study, with the approval and guidance of academic advisers in collaborating Departments, will be tailored to the interests of the students.
The Department of Physics

Degree offered: BSc in Physics

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. Students are given opportunities to engage in interdisciplinary activities in collaboration with other Departments.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12) candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Physics, Pure Mathematics and one other subject chosen from Applied Mathematics, Chemistry or Biology.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

Degree Structure

The three-year Bachelor of Science degree programme requirements have two components: a series of core courses and an area of concentration.

In the first two years, all physics students are required to complete a core of general physics courses. These include: introductory and intermediate electricity and magnetism; optics, waves, and particles; mathematical methods in physics; classical mechanics; thermodynamics and statistical physics; microphysics or quantum mechanics; and a course in modern experimental optics, electronic circuits, or advanced experimental physics.

The area of concentration should reflect the student's interest. Specific programmes are designed with the guidance and approval of academic advisers.

Certain mathematics and computer science courses are highly recommended for all students. These include: ordinary differential equations, partial differential equations, linear algebra and matrix theory, complex variables and modern algebra, data structure, and numerical methods for digital computers.
THE SCHOOL OF ENGINEERING

Degree offered:
Bachelor of Engineering (BEng) with Honours

The School of Engineering is the largest of the four Schools. When fully established, it will enrol 40% of the University's undergraduates and approximately 35% of the postgraduates. The School comprises six Departments: Chemical Engineering, Civil and Structural Engineering, Computer Science, Electrical and Electronic Engineering, Industrial and Manufacturing Engineering, and Mechanical Engineering.

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 technique. In addition, the Industrial Training Centre offers structured practical experiences required 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 Electronic Support Shop, Instrumentation Pool, Machine Shop, Glass Blowing Shop, CAD/CAM Laboratories, Microelectronics Fabrication Centre, and Materials Characterisation and Preparation Laboratory.

In keeping with the University's general philosophy of providing professional training with a generalist outlook, engineering undergraduates take no more than two-thirds of their credits within the School of Engineering. All students are required to take at least 12% of their courses in the School of Humanities and Social Science. The remaining credits are spread over courses offered by Departments in other Schools.

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 is 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 information on the applicant's motivation, aptitude and overall suitability for the chosen field of study.
The Department of Chemical Engineering

Degree offered: BEng in Chemical Engineering

Chemical engineering is a discipline in which the principles of mathematics, physical and natural sciences are used to solve problems in chemical systems. Chemical engineers design, develop, and optimise processes or plants, operate them, manage the individuals and capital which make them possible, and do the necessary research for new developments. These skills are critically needed in a broad range of industries, ranging from the traditional areas of petroleum refining and chemical processing to the increasingly important areas of environment, biotechnology, and microelectronics. In order to prepare the students for such a diversity of opportunities, the programme in the Department emphasises strongly the skills to solve problems, to do experimental work, and to communicate technical information effectively. The latest problem-solving tools and experimental apparatus are used to educate students to assume a leadership role in the rapidly changing technological world.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Chemistry and Pure Mathematics, and one other subject chosen from Applied Mathematics, Physics, or Biology.

Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.

Degree Structure

The core of the curriculum is a series of required chemical engineering courses which cover the fundamental principles of the discipline. These courses include material and energy balances, thermodynamics, transport processes, reactor design, and process engineering. By taking elective courses, students can build upon this foundation a specialised area of expertise. They can choose from several areas which coincide with the research strengths of the Department in advanced materials, bioengineering, environmental engineering, mathematical modelling, and computer applications. These areas are interdisciplinary by nature, and students may participate in research activities by enrolling in project courses for up to six credits.

Other than the general University requirements, the curriculum also contains science and engineering electives for courses outside of the Department. The specific courses to be taken depend on the student's interests and are subject to approval by the academic advisor. Some options are: statistics, numerical analysis, statics and dynamics, circuits, biology, biochemistry, and advanced chemistry courses.
The Department of Civil and Structural Engineering

Degree offered:
BEng in Civil and Structural Engineering

Civil and structural engineering is a broadly based discipline providing the knowledge and technical skills in solving problems related to the creation and advancement of civilization. Civil and structural engineers are primarily responsible for the planning, design and construction of what is commonly referred to as the infrastructure for society and the development, utilisation, and control of resources for the benefit of mankind. Participating in 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 to prepare students to meet the challenges in the development of a modern society. In particular, the programme is aimed at familiarising the 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 and rapid development and modernisation of infrastructure. The PADS Projects to be constructed 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 technical competence, managerial skills and leadership quality to satisfy the present and future needs of Hong Kong.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Pure Mathematics, Physics, and one other subject chosen from Applied Mathematics, Chemistry or Biology.

Degree Structure

Due to the broad-based nature of the discipline as well as the general practice of the profession, all undergraduate students in this programme are required to take at least 12% of their credits in humanities and social sciences, and a series of basic subjects covering the areas of construction engineering, environmental engineering, geotechnical engineering, structural engineering, transportation engineering, and water resources engineering. Upon completion of the above, the student may elect to focus his or her study on one or two areas of applications by taking elective subjects with comprehensive planning and design elements. Alternatively, students may choose to remain in the general programme with a course of study tailored to their own interests.

Because of the importance of computer use in modern engineering practice, all students in civil and structural engineering must, in the course of the three-year programme, take at least one class in computer analysis and one course in computer-aided design. Each student is required to complete a final-year Project and submit a written report under the supervision of an academic adviser.
The Department of Computer Science

Degree offered: BEng in Computer Science

Computer science is the study of the structure, function and applications of computer systems. The Computer Science programmes include such topics as computer architecture, communications and networks, operating systems, programming languages and compilers, database systems, human interface, design and analysis of algorithms, and artificial intelligence.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Pure Mathematics, Physics, and at least one other Advanced Level subject.

Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.

 Degree Structure

All Engineering undergraduates are required to take a series of courses which provide them with basic engineering theories, concepts, and practices. Classes in the basic sciences and mathematics also form part of the curriculum. Introductions to the theory, architecture, and applications of computers are taught in the second year. In the third year, students may specialise in one of the major concentrations such as software, information science, or computer engineering. Alternatively, students may choose to remain in the general programme with a study plan tailored to their own interests.

A final-year project and thesis is required for graduation, under the supervision of an academic adviser.

You cannot teach a man anything; you can only help him to find it within himself.

~ Galileo
The true scientist never loses the faculty of amazement. It is the essence of his being.

- Hans Selye

The Department of Electrical and Electronic Engineering

Degree offered: BEng in Electrical and Electronic Engineering

Electrical and electronic engineers utilise theories of electricity, electromagnetism, circuits and electronics to analyse and design devices or systems that generate or use electricity. In performing their jobs, electrical and electronic engineers today rely not only on physical principles but also on sophisticated engineering tools such as computer-aided design tools and sophisticated signal generation, test and measurement equipments. The programme in the Department emphasises electronics, signal processing, communication and microprocessor systems. The curriculum is designed to train students with a solid skill in fundamental principles, conceptualisation as well as a good exposure to the state-of-the-art CAD and CAE tools.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Pure Mathematics, Physics, and one other subject chosen from Applied Mathematics, Chemistry or Biology.

Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.

Degree Structure

First-year students take electrical and electronic engineering courses in basic electronics, semiconductor device physics, introduction to circuits, signals and systems, and electromagnetic wave theories. They also take courses required for all engineering undergraduates. In addition to the engineering courses, basic science, language and mathematics requirements are completed in the first year. In the second year, required courses in analog and digital electronics, and microprocessors, computer engineering and VLSI circuit design provide basic introductions to various subject areas and the common core in the electrical and electronic engineering curriculum.

In the final year, students may specialise in a major subject area. Possible majors include integrated circuits, telecommunication, power engineering, solid-state devices, digital signal processing and computer-aided engineering. A general programme is also available for those who elect not to specialise in one subject area.

Each student is required to complete a final-year project and submit a written report under the supervision of an academic adviser.
The Department of Industrial and Manufacturing Engineering

Degree offered: BEng in Industrial and Manufacturing Engineering

Industrial and manufacturing engineering is a broad-based discipline which is built upon a collection of methodological tools brought together for problem-solving in engineering and manufacturing management, with productivity improvement as its overall objective. Unique among the engineering disciplines, industrial and manufacturing engineering is primarily concerned with translating designs into economic products, rather than with fundamental design of the product themselves.

Modern industrial and manufacturing engineering encompasses a wide spectrum of sub-specialties, from the "people-oriented" human-factor engineering to the "high-tech" sounding computer-integrated manufacturing (CIM). Other examples may be manufacturing strategy, facility and environment engineering, quality assurance, and manufacturing processes. Industrial and manufacturing engineers work in diverse industries and environments under a wide variety of job titles.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations must obtain acceptable grades in Pure Mathematics, Physics and one other subject chosen from Applied Mathematics, Chemistry, or Biology.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

Degree Structure

The three-year curriculum is designed to provide the student with a broad and balanced knowledge base in the areas of mathematics, humanities, social science, basic engineering, computer application, and business administration. In order that theory and practice can be combined, workshop and industrial training are required. Students are also required to complete four engineering core courses in addition to the departmental requirements, such as quality control and production methods.

The programme emphasises computer and analytical skills. The concept of concurrent-engineering receives prominent treatment. After the first two years of common curriculum, a student may elect to specialise in computer-integrated manufacturing (CIM), facility and environment engineering, systems engineering, or manufacturing strategy. All students are encouraged to take courses offered by the School of Business and Management.
The Department of Mechanical Engineering

Degree offered: BEng in Mechanical Engineering

Mechanical engineering is a broadly based discipline which applies technical skills to solving engineering problems and to creating and operating mechanical devices and 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 continuing study in all engineering specialties. 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 student’s self-confidence, ability of observation, analysis, and decision-making, and habit of perseverance. It also teaches students the importance of continued learning and teamwork, and the power of a thorough and systematic approach to problem solving.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12), candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in Pure Mathematics, Physics, and one other subject chosen from Applied Mathematics or Chemistry or Biology.

Candidates applying on the basis of other qualifications should demonstrate acceptable grades in the equivalent subjects in examinations taken.

Degree Structure

The three-year programme for Bachelor of Engineering in Mechanical Engineering consists of three stages. The first stage concentrates on the fundamentals of mechanical engineering in solid mechanics, dynamics, fluid mechanics, properties of materials, and design. The second stage consists of integration of engineering sciences with laboratory, design projects, and manufac-

turing process. The third stage consists of electives focusing on specific professional concentrations which include: design and analysis of mechanical devices and systems, environmental studies, material engineering, bio-engineering, and mechatronics.

Because of the importance of electronics and computers to all future mechanical systems, all mechanical engineering students are required to take courses in circuits, electronics, and microprocessor architecture.

A general programme is also available for those who elect not to specialise.
VI.

THE SCHOOL OF BUSINESS AND MANAGEMENT

Degree offered:
Bachelor of Business Administration (BBA) with Honours
Bachelor of Science (BSc) with Honours

The School of Business and Management comprises six Departments: Accounting, Business Information Systems, Economics, Finance, Management, and Marketing. When fully established, the School will enrol about 35% of the University’s undergraduate students and approximately 31% of its postgraduate students.

All Departments offer first-degree bachelor’s programmes as well as postgraduate degrees through to the doctorate.

In keeping with the University’s general philosophy of providing specialised training with a generalist outlook, all undergraduates take no more than two-thirds of their credits in their chosen School. All students are required to take at least 12% of their courses in the School of Humanities and Social Science. The remaining credits are spread over courses offered by Departments in other Schools.

All students are registered in one of the Departments although there are no first-degree “majors” in the traditional sense. Rather, every student, building on a strong broad-based foundation, chooses an area of concentration in which particular skills are acquired. Thus, graduates are able to enter the job market while retaining sufficient flexibility and adaptability for future career growth. Initially areas of concentration are being offered individually by the Departments in the School. Multi-departmental concentrations are being planned and are likely to be offered in the future.

Strong emphasis is placed on the scientific and analytical methods as the fundamental pedagogical approach, supplemented by the use of case studies appropriate to Hong Kong and its region. All programmes take full advantage of the University’s state-of-the-art technological facilities and capabilities in their instruction and research.

International Co-operation

A close partnership has been established between the School of Business and Management and the Anderson Graduate School of Management of the University of California Los Angeles (UCLA). Senior academic administrators and staff from UCLA advise on curriculum matters, offer joint executive education programmes, recruit, teach and conduct research. In return, the School provides a dynamic homebase for UCLA in Asia-Pacific. Joint appointments, long term exchanges and collaboration are planned.

In addition to the partnership with UCLA, the School has secured assistance from individual teaching staff at other American and British universities.

The School of Business and Management is thus very international in all its teaching, research, and service functions. It is mandated to become a leading business school in Asia within the University’s first decade of existence.
Selection Criteria

Selection for admission to the University and the School is not based solely on the results of a single examination. While results of the HKALE and HKCEE are important, applicants are judged on a variety of characteristics. Among these are: reports and recommendations from school principals or academic referees, progress and breadth of subjects taken throughout secondary school, and participation in extra-curricular activities. For overseas and other applicants who have not participated in Hong Kong public examinations, other equivalent examinations and/or academic qualifications are considered.

Students from the science stream are particularly suitable for a number of the concentrations offered.

Admission Requirements

In addition to satisfying the General Undergraduate Entrance Requirements of the University (see page 12) candidates applying on the basis of the Hong Kong Advanced Level Examinations should obtain acceptable grades in at least three subjects.

Candidates applying on the basis of other qualifications will also be expected to have achieved acceptable grades in examinations taken.

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 information on the applicant’s motivation, aptitude and overall suitability for the chosen field of study.

Degree Structure

All undergraduate students in the School of Business and Management are required to complete a common core of foundation subjects in the School. These subjects include:

- Financial and Managerial Accounting
- Micro- and Macro- Economics
- Organisational Behaviour and Management
- Management Information Systems
- Financial Management
- Marketing Management
- Business Statistics

In addition, students design a programme with the guidance and approval of academic advisers, in one of the following areas of concentration:

- Accounting
- Business Information Systems
- Economics
- Finance
- Management
- Marketing
The Department of Accounting

Degree offered: BBA in Accounting

As a basic quantitative skill, accounting is fundamental to all business undertakings and has applications in many areas of business and management. Courses offered by the Department focus on concepts and theories, providing students with a solid basis from which they can adapt to changing techniques and practices when they enter the professional world.

Students registered in the accounting concentration are able to gain exemption from certain professional examinations and are prepared to face professional certification in the shortest possible time after their graduation.

The Department of Business Information Systems

Degree offered: BBA in Business Information Systems

Modern management decision-making depends heavily on the collection and transformation of data into useful information. With the increasing sophistication of the computer as a major management tool, this processing of information has become a rapidly expanding industry, bringing about a growing demand for management-oriented and technically proficient information systems professionals.

Courses offered in this Department aim to fulfil this demand by providing students with the basic conceptual framework and tools of analysis necessary to the design, implementation, and control of business information systems.

Economics as a positive science is a body of tentatively accepted generalisations about economic phenomena that can be used to predict the consequences of changes in circumstances.

- Milton Friedman

The Department of Economics

Degree offered: BBA or BSc in Economics

Economics is a social science that deals with the production and consumption of goods and services; and the forces determining economic growth, prices, and the distribution of wealth. Courses offered by the Department provide students with a theoretical basis to the understanding of issues such as economic fluctuations, determinants of growth and decline, and international trade and exchange relations.

The degree offered is determined by the specific path chosen after the first year of study.

The Department of Finance

Degree offered: BBA in Finance

Courses offered by the Department aim at providing students with a working understanding of the financial decision-making process and insights into how financial markets function.

Students interested in this discipline may wish to focus on micro-finance issues, such as corporate finance and investments, or on macro-finance issues, such as financial markets and the international financial system.

The Department of Management

Degree offered: BBA in Management

The primary role of managers is the effective and efficient management of individuals and groups in business firms, not-for-profit organisations and other kinds of organisations. Management, therefore, deals
with the many aspects of the administration of an organisation: the formulation of goals and long- and short-term plans; the establishment of decision-making processes; the design of control systems; the development of human resources; etc. Courses offered by the Department provide students with knowledge they need to become effective managers. They learn not only to evaluate current needs but also to anticipate future needs of an organisation. They acquire practical skills in planning, decision-making, and problem solving.

The Department of Marketing

Degree offered: BBA in Marketing

Marketing is a complex process involving many skills and activities to direct the flow of products and services from producers to consumers. It includes marketing research, which is the process of interpreting conditions in the marketplace and forecasting future trends; the development of competitive strategies to ensure the demand for a product or service; advertising and promoting; pricing; identifying effective ways of selling through agents, wholesalers, and retailers; and distributing the actual product or service.

Courses cover all aspects of marketing and provide students with knowledge of the analytical tools to understand marketing problems and the skills to solve practical problems they will encounter on the job.
VII. THE SCHOOL OF HUMANITIES AND SOCIAL SCIENCE

Degree offered:
No undergraduate degree is offered in this School.

In addition to the Schools of Science, Engineering, and Business and Management, the University has established a School of Humanities and Social Science. The role of the School is two-fold. First, its course offerings support undergraduate students' main specialisations by illuminating the social, regional and international contexts of science, technology and business enterprise. This is regarded as crucial to the education of the region's future leaders and innovators in commerce, industry, the professions and public services. Secondly, the School offers studies in the Chinese cultural heritage, the arts, modern languages and other fields, with the aim of extending students' knowledge and enlarging their field of vision.

Unlike the other three Schools, this School does not offer undergraduate degrees. There are two Divisions in the School, the Division of Humanities and the Division of Social Science. Both offer postgraduate work, by means of a programme of taught MA degree courses and the enrolment of research students for master's and doctoral degrees.

All undergraduate students are required to take at least 12% of their credits in the School of Humanities and Social Science. During the first year, each student is likely to select a course from the Humanities Division and another one from Social Science. In the second year, the course, "Social Context of Science, Technology and Business Enterprise", is offered to all students. In the third year, the courses, "Hong Kong and its Region" and "China, its History and Culture", are also offered.

Through the Language Centre, the School offers a range of opportunities for students to enhance their communication skills in English, particularly in written and spoken English for academic purposes. The Language Centre is equipped with a large variety of teaching/learning materials, both for use in the classroom and on a self-access basis. Plans are under way to offer instruction in other languages as well.
VIII. INTERDISCIPLINARY RESEARCH INSTITUTES

The University plans to establish a number of interdisciplinary Research Institutes which will cut across Department and School boundaries. The academic staff of these Institutes will collaborate on mission-oriented research projects.

Science... never solves a problem without creating ten more.
- George Bernard Shaw

These Research Institutes, together with the academic Departments, will provide students with a wide range of excellent research opportunities at the undergraduate as well as postgraduate levels, from basic research to applied research projects involving one or several Departments.

Some of the Research Institutes being planned include:

- Advanced Materials
- Biotechnology
- Energy
- Environmental Studies
- Information Technology
- Microelectronics
- Transportation Studies

At the time of this Prospectus going to print, two Research Institutes have been established. The University wishes to thank the Stewards of The Royal Hong Kong Jockey Club for a grant of $130 million, enabling the establishment of the Biotechnology Research Institute, and the Board of Hong Kong Telecommunications Limited for a grant of $100 million for the founding of the University's Hong Kong Telecom Institute of Information Technology.

Other research institutes will be established when additional resources become available.

Discovery consists of seeing what everybody has seen and thinking what nobody has thought.
- Albert Szent-Gyorgyi
The University Library

The University Library occupies a central location close to the University’s entrance Piazza, covering five floors and commanding a spectacular sea view.

As an integral component of the academic programme, the Library supports the University’s teaching and research in science, engineering, management, the humanities and the social sciences. Audio-visual materials, both educational and recreational, are available for use in specially equipped facilities. There are seminar rooms for meetings and instruction, areas for group discussion, and an ample number of study carrels for individual use. The Library is much more than a repository for the accumulated knowledge of civilisation; it serves as the heart of HKUST’s intellectual enterprise.

The rapid development of HKUST requires a correspondingly rapid rate of growth in its library collection. The Library opened in 1991 with a collection of approximately 120,000 books, bound periodicals as well as non-print materials. During the 1991-94 triennium, and thereafter, the Library plans to add about 60,000 items per year to provide support for HKUST’s programme development. Reaching beyond local holdings the Library has made extensive provision for automation. The Library Online Catalogue forms a part of the campus-wide network, therefore accessible from every part of the campus. Through the Online Catalogue users are able to consult a variety of bibliographic and full-text information as well as search CD-ROM databases. Plans are being developed to link the University Library via telecommunications to libraries and databases in institutions locally and throughout the world.

An experienced staff assists patrons in the Circulation and Reference areas. The Reference staff provides help in using the collection as well as assistance with online searches and interlibrary loans. There is also a fully-equipped training for group instruction. The University Library has a strong service orientation in order to meet the varied needs of its academic community most effectively.

The Computing Services and Telecommunications Centre

The Computing Services and Telecommunications Centre supports undergraduate teaching, advanced instruction, and research in science, engineering, business and management, and humanities and social science; it also serves the University’s administrative needs. A most modern and effective approach to information systems has been implemented. A multilingual system is also being established.

The computing environment is highly distributed, consisting of a network of microcomputers and scientific workstations which connect all campus buildings. A few large minicomputers and mainframe computers supply central resources and network services. A very high speed “backbone” network has been installed, with distributed wiring junctions from which various local area networks emanate. The “backbone” network is the Fibre Distributed Data Interface (FDDI), one of the world’s most advanced systems, that operates at 125 million bits/second.

CCST operates a Scientific Computing Centre which consists of a number of supercomputing workstations (~80 MIPS each) arranged in a common location and able to combine their individual power to work cooperatively on one or more very large scientific problems. This supercomputing centre is available to staff and selected students.

In addition, CCST operates computational laboratories referred to as the “Computer Barns”. Each Computer Barn is a large facility containing many PCs (both MS-DOS and Macintosh) which are available primarily to undergraduates. These facilities contain state-of-the-art printing and plotting devices for use by HKUST undergraduates.
The limits of my language mean the limits of my world.
- Ludwig Wittgenstein

At HKUST, the computer becomes the window to a vast array of information resources, such as the University Library, various databases for the different scientific and business disciplines, other Hong Kong institutions and, through the BITNET connection, educational and research institutions worldwide.

The Language Centre

The Language Centre in the School of Humanities and Social Science offers a wide range of language services to all undergraduate and postgraduate students.

The greater part of these services is devoted to English language support. The Centre assesses the English language competence of all students on entry. Those students found to be in need of English language support may be required to undertake supplementary language studies. They have access to the Language Centre's pre-sessional and in-course classes. In addition to this supporting role, the Language Centre strives to improve students' proficiency in Chinese, plans to offer a programme of optional courses in modern world languages, and assists with other language studies on an extra-curricular basis.

For the provision of these services, the Language Centre has a number of modern audio-visual and computer-equipped language laboratories suitable for both supervised group practice and individual study, which are also supported through the availability of audio-visual carrels in the Library where a stock of language tapes for student use is maintained.

The Education Technology Centre

The University is committed to high standards and up-to-date methods in undergraduate and postgraduate teaching. To this end, the Education Technology Centre sustains a comprehensive service for all academic staff. It provides and maintains a wide range of audio-visual resources for academic purposes. It assists staff in producing their own teaching and learning packages, including those based on computer technology, and audio-visual teaching aids such as slide presentations, video tapes, and overhead transparencies.

To underpin these technical services, the Education Technology Centre also organises staff development workshops and seminars on educational issues in higher education, including the use of audio-visual materials in teaching and the production of teaching and learning packages.

The Industrial Training Centre

The Industrial Training Centre (ITC) provides quality training to all engineering students and, on an elective basis, to interested science students. The workshops offered by the ITC satisfy the accreditation and registration requirements of the Hong Kong Institution of Engineers (HKIE).

An important aspect of this training is the integration of the workshop experience with the knowledge acquired in the classroom and laboratories. This is accomplished through curriculum planning and co-ordination between the Departments and the ITC. The workshops are
designed in modular form and each Department works with ITC staff to design and specify combinations of modules that meet the needs of its students.

The introductory phase of training consists of basic engineering practices, safety procedures, handling of hand and power tools and machine tools in a supervised setting.

Beyond the introductory phase, training is designed to arouse the interests of the students in engineering practice, to stimulate their imagination, and to help them develop their talents. This can best be accomplished in a simulated industrial setting with "real" engineering work of such intellectual level as to match the students’ ongoing academic activities.

The training modules are designed to strike a proper balance between the development of skills and an appreciation of engineering processes. To ensure the cohesiveness of the training modules, each group of students have an ITC staff adviser who monitors progress and meets with the group on a regular basis.

Initially industrial training will be conducted at the Hong Kong Polytechnic.

The CAD/CAM Laboratory

Computer-aided design (CAD) is becoming a standard tool in many engineering and scientific disciplines, and related software and graphic display systems are used for purposes outside the domain of technology and the hard sciences such as geographical information systems. The translation of CAD into process control and computer-aided manufacturing (CAM) is a major ingredient in the modernisation of industry.

The CAD/CAM Laboratory at the University supports the teaching and research activities of many Departments. The Laboratory occupies approximately 350 square metres, and will expand to more than 500 square metres in Phase III with state-of-the-art equipment and design facilities.

Give us the tools, and we will finish the job.
— Winston Churchill

Other Central Support Facilities

In addition to the central academic support services, the University has many other facilities specifically designed to support the various instructional and research activities of the Schools, Departments, and Research Institutes, including the following:

- Electronic Support Shop
- Glass Blowing Shop
- Instrumentation Pool
- Machine Shop
- Materials Characterisation and Preparation Laboratory
- Microelectronics Fabrication Centre
X. STUDENT SERVICES

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

Professional counsellors are available to offer assistance in many areas of student concern, such as adjustment to a new environment, financial hardship, personal problems, and study-related problems.

Appointments Service

The Appointments Service helps students clarify their career plans and options. To assist students in their career decisions, this unit organises seminars and exhibitions, maintains contacts with potential employers, assists students in securing summer and part-time employment, and in general, keeps students informed of employment and career opportunities.
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. A large multipurpose sports hall with 1,600 square metres of floor space is available for such sports as badminton, volleyball, basketball, tennis, indoor soccer, table tennis, with other areas set aside for fencing, martial arts, aerobic dance, and other exercises. The outdoor sports facilities on the lower levels of the Campus near the waterfront will be completed in 1993. These will include a 50-metre swimming pool, an all-weather pitch, a 400-metre athletics track as well as basketball and tennis courts. Expansion of the indoor sports hall is also being planned to include a number of squash courts and other exercise facilities.

HKUST students will be participants, not just spectators.

- HKUST Vice-Chancellor
  Chia-Wei Woo

Health Service

The University Health Centre provides out-patient health care for the students. There are plans to provide expanded medical services, dental services, and a physiotherapy treatment service for both students and staff at a later stage.

Health education workshops and seminars will also be 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. These are located on campus in four multi-storey residence buildings. Undergraduate rooms are generally shared by two students; postgraduates are housed in single rooms with air-conditioning.

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.

For the academic year 1993-94, the University expects to be able to house 356 postgraduate and 1,722 undergraduate students in Residential Halls. Allocation of student housing is organised by the Student Affairs Office.

Please consult the section on ‘Fees, Other Expenses, and Financial Assistance’ (pages 75-76) for details of Residential Hall fees.

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.
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 workshops and studios, music and television facilities, student common rooms, meeting rooms and games rooms for use by all students.

Catering facilities will be expanded to 2,000 seats by 1993. The facilities are centrally located and a variety of services will be provided.

Commercial facilities include a bookshop, banking services, and a convenience store.

It is anticipated that students will form a Students Union, as well as other societies associated with academic disciplines, residential units, the arts, and social interests.

Physical accommodation will be provided to house these student organisations. Staff from the Student Affairs Office will be available to guide and assist students in the formation and operation of these groups.

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 1993-94 academic year.

1. An application fee of HK$120 is charged for each application for admission made directly to the University. This fee, payable at the time of submission of the application form, is not refundable.

2. A fee of HK$250 is charged for an application made through the Joint University and Polytechnic Admissions System. The fee will be collected by the JUPAS Office on behalf of the participating institutions.

3. The tuition fee for local students admitted for the academic year 1993-94 is expected to be HK$17,000 per annum. At this stage, the tuition fee for overseas students has not been determined. The fee may be paid at the beginning of the academic year or in equal instalments at the beginning of each semester.

4. In addition, each new student will be required to pay a deposit of HK$350 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 to the graduation fee upon graduation, or refunded if the student leaves the University before graduation.

5. All students are required to pay a fee to cover expenses for student activities including those of the Students Union. The amount of the fee will be announced later.
6. 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 in completing registration procedures as well as overdue library books, etc. The late charges will be levied in accordance with the rules and regulations set by the respective offices.

7. Residential Halls are expected to operate on a self-supporting basis and charges are based on operating expenses. The Residential Hall fees do not include the cost of meals.

8. There are other fees and charges such as the graduation fees, re-examination fees, transcript fees, replacement charges for lost student identity card, etc. Detailed information will be available on registration or from the various administrative offices concerned.

9. The total cost of living and studying at the University is expected to be about $36,000 per year including the items mentioned above. This figure includes the cost of food and drink, text books, 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 financial difficulties are eligible to apply for financial aid under a Government student finance scheme. The scheme is administered by the Student Financial Assistance Agency of the Government.

The financial assistance is offered in the form of grants and/or loans. Grants are given for tuition and other general fees; loans are approved for living expenses. Students are expected to repay their loans at an interest rate of 2.5% per annum within a specified period after graduation or upon leaving the University.

Application for assistance from the scheme should be made through the Student Affairs Office of the University.

**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, based solely on academic merit and the recommendations of a School or Department. Other scholarships have conditions specified by the donor. Interested students need to apply for them through the Student Affairs Office.
XII. ADDITIONAL INFORMATION

The Academic Year 1993-94

The academic year of the University will run from 1 July 1993 to 30 June 1994 and will include two 15-week semesters and a Winter Session of five weeks.

Semester dates for the year 1993-94 provisionally will be:

- Full Semester: 6 September 1993 to 17 December 1994
- Winter Session: 3 January 1994 to 4 February 1994
- Spring Semester: 14 February 1994 to 3 June 1994*

* The dates of the Spring Semester include a one-week break from 30 March to 5 April 1994.

The Winter Session is held between the two semesters for remedial activities, study skills, language improvement, enrichment, and other activities. For most students attendance is not required.

Detailed information about the University will be contained in the University Calendar for 1993-94 which will be published in Summer 1993. Students accepted for admission to the University in September 1993 will be able to purchase a copy of the Calendar from the University at that time.

General Enquiries

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

- 9am - 12.30pm
- 2pm - 5pm

and on Saturdays during the following hours:

- 9am - 12noon

All enquiries should be addressed to:
The Director of Admissions
Registration and Records
The Hong Kong University of Science and Technology
Clear Water Bay
Kowloon
Hong Kong

Telephone: 358 6622
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