Starting 2005, the B.Sc. (Hons) Computer Studies programme will be converted to be an attractive alternative to our Government-funded B.Sc. (Hons) Computer Science programme with the additional flexibility of being offered in combined mode (full-time/part-time).

The curriculum also follows the same high-quality academic standards as that offered by our highly successful B.Sc. (Hons) Computer Science programme, which is Hong Kong’s first CS programme that was accredited by the Hong Kong Institution of Engineers (HKIE).

In addition, this programme will also be taught by the same team of internationally-qualified full-time academic staff that teach the B.Sc. Computer Science programme. Note that unlike the B.Sc. Computer Science programme, our B.Sc. Computer Studies programme is not a sandwich programme and placement will not be required.

This programme can be a very attractive alternative for full-time/part-time students, from Hong Kong, the mainland of China or nearby region, as a top-up path for Higher Diploma, Associate Degree or equivalent students in related disciplines of computer studies. (Students from the mainland of China may be required to study in full-time mode unless he/she has a local sponsor.)

**Background**

High-technology development is a crucial factor for the continued success of Hong Kong, and healthy technological development depends on the availability of well qualified personnel.

In a recent study performed by HK Government’s “Working Group on Enabling Environment for IT Development,” it indicated that the Government is committed to building a competent IT workforce. The Report estimated that by 2006, the IT manpower requirement will increase to around 70,000 to 80,000. This represents an annual additional training requirement for 4,500 to 5,500 IT employees, of which around 50% should be at degree level or above.

In another report - “Executive Summary Consultancy Study on the Manpower and Training Needs of the Information Technology Sector” – performed by the Price Waterhouse Coopers for the Hong Kong Government, it predicts that the IT manpower shortfall will be as large as between 16,000 to 56,000 by the year 2010! The self-financed BSCS programme is geared towards satisfying these projected demands for IT professionals in Hong Kong.

**Aims of the Programme**

The aims of the programme are to provide the best possible undergraduate education with a well-balanced emphasis on practical hands-on development skills as well as software engineering management know-hows needed to manage and oversee software development teams and projects.

Through in-depth lectures and rigorous tutorials, laboratory work, projects and case studies, students will acquire a thorough understanding of the theories and practical skills behind software development, software engineering, computer networks and security. Graduates can easily leverage this strong foundation to specialize in various technical and managerial positions.

**Strengths of the Department**

The Department of Computer Science offers a wide range of taught BSc and MSc programmes as well as MPhil and PhD research programmes which are aimed to equip our graduates with technical skills and professional knowledge needed to play leading roles in the computer industry.

Our staff members have made significant contributions internationally through their research publications in well-known internationally-refereed journals and conferences. They have also contributed locally through the development of real-life systems for local industries; such as multimedia document management system for garment manufacturers, intelligent scheduling system for the airlines & logistics companies, web-based student performance monitoring systems for local schools and a campus public key infrastructure (PKI) for internet security.

Currently, the Department is conducting over 80 research and development projects with total funding over HK$40 million. These projects are funded by government agencies such as the University Grants Committee, the British Council, Industry Department and Health Department; multi-national computing companies such as IBM, SGI, and Sun Microsystem; and charitable trusts such as the Croucher Foundation and Hong Kong Jockey Club. The Department is also active in organizing numerous international-level conferences and workshops.
Prospects
Graduates can look forward to professional advancement in technical specializations as well as in systems development management education in Hong Kong or abroad.

Programme Structures
The programme consists of several core courses and a wide range of electives in various areas including Software Engineering, Computer Systems, Information Security, Distributed Systems and Multimedia Computing.

For students with Higher Diploma or Associate Degree, credit transfer will be given based on academic performance. Example programme for student with block credit transfer as well as out-of-discipline (OOD) credit transfer studying part-time (total 49 credit units):*

<table>
<thead>
<tr>
<th>CS Courses</th>
<th>Credits</th>
<th>Others</th>
<th>credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>13</td>
<td>Chinese &amp; English</td>
<td>exempted</td>
</tr>
<tr>
<td>Electives</td>
<td>36</td>
<td>Free Electives</td>
<td>transferred</td>
</tr>
</tbody>
</table>

*Subjected to approval. In addition, students from the mainland studying FT may be required to take additional language courses.

Core Courses
- Computer Organization
- Data Structures and Algorithms
- Software Development Methodologies
- Database Systems

Sample Electives
- Advanced Software Engineering
- Advanced Database Systems
- Information Retrieval
- Distributed Systems
- Internet Applications Development
- Internet and Distributed Systems Programming
- Information Security and Management
- Internet Security and E-Commerce Protocols
- Pervasive Computing
- Design and Analysis of Algorithms
- Topics in Theory of Computing
- Computer Architecture
- Computer Graphics
- Multimedia Technologies & Applications
- Chinese Computing
- Information Systems Project Management
- Information Systems Audit

Entrance Requirements
For admission to the programme, applicants must satisfy the University's General Entrance Requirements. Holders of a Higher Diploma or an Associate Degree in Computer Studies or other relevant disciplines, may be admitted with credit transfer, which enables them to complete the programme in three years of part-time or two years of full-time.

Fees
This programme is offered as a self-financed programme. Our fee is HK$2,100/credit unit.

Financial Assistance
Scholarships will be awarded to qualified students. In addition, students may consider applying for the Trade and Industry Department's SME Training Fund.

Important Note: The information given in this leaflet is only indicative. For the definitive requirements, please consult the University Prospectus.

Department of Computer Science
City University of Hong Kong
83 Tat Chee Avenue, Kowloon, Hong Kong.
Tel: (852) 2788 8580 Fax: (852) 2788 8614

http://www.cs.cityu.edu.hk

Feb-05