Bachelor of Science (Hons) in Computer Studies

Programme Code: BP12
Year 2005 Intake
Established in 1984, the Department has since evolved into a world class organization that excels in both teaching and research, providing the best well-rounded education for our students.

As part of the Faculty of Science and Engineering, we have been a major source of training for IT professionals in HK, producing over 250 BSc to PhD graduates each year. With roughly 40 academic staff and an additional 30 research staff, we are able to provide broad and comprehensive education in various areas of computing.

In addition to core courses, our curriculum also exposes students to the latest advances in Internet technologies, mobile computing, information security, computer games, e-commerce, distributed architectures, multimedia, computer vision, parallel programming, high-speed networking, etc. Students may undertake design and development projects in these and other areas.

The Department prides itself for maintaining one of the most stringent quality assurance procedures in Hong Kong to ensure the highest quality education is offered to our students.

The Department also maintains state-of-the-art computing facilities and laboratories. In addition, several CityU R&D Centres are also hosted here, including the Centre for Innovative and Multimedia Technologies and the Internet Security & PKI Application Centre.

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

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 broad and thorough understanding of the theories and practical skills behind software design and development, software engineering, database systems, computer networks and information security. In addition, our study streams allow students to further specialize in different areas of expertise. Graduates can easily leverage this strong foundation to specialize in various technical and managerial positions.
Our Strengths

The Department of Computer Science offers a wide range of taught BSc and MSc programmes as well as MPhil and PhD research programmes that 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 and have won numerous international awards for their contribution to the field of Computer Science. They have also shared their knowledge with local industries through many major applied R&D work; such as multimedia document management system for garment manufacturers, intelligent AI scheduling and rostering systems, 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 Microsystems; and charitable trusts such as the Croucher Foundation and Hong Kong Jockey Club. In 2004/2005, the University, as a whole, received more research funding from UGC than any other universities in HK.

As part of CityU, we have contributed to making our University one of the top 200 universities in the world! In fact, our CityU graduates have been ranked to have the best IT literacy among all universities in HK and among the highest in work attitude.

What You Will Be Studying

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 (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>
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</tbody>
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* Subjected to approval. In addition, students may be required to take some additional language courses.

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

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

Computer Studies

Did you know ... ?

- This programme offers the same high-quality curriculum as the UGC-funded programme and taught by the same team of internationally-qualified academic staff members.
- Students are admitted from year 1 with credit transfer for qualified higher diploma/associate degree students/graduates.
- Additional flexibility of combined full-time or part-time modes (students can switch between modes when needed).
- Study streams are available to allow students to specialize into Software Engineering, Multimedia, Systems and Network, or Information Security.

Prospects

Graduates can look forward to professional advancement in technical specializations as well as in systems development management education in Hong Kong or abroad.

Enquiries

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Tel : 2788 8580
Fax : 2788 8614
E-mail : csadm@cityu.edu.hk

Admissions Office
Tel : 2788 9094
Fax : 2788 9086
E-mail : asadmit@cityu.edu.hk

Mode of Study

Combined mode: Students taking programmes in combined mode can attend full-time (12-18 credit units per semester) or part-time (no more than 11 credit units per semester) study in different semesters without seeking approval from the University.

How To Get In

To be eligible for admission, you must satisfy the 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

- Application fee*: HK$150 for paper form application
- HK$100 for online application at www.cityu.edu.hk/admo/apply.htm
- Programme fee: HK$2,100 per credit unit (subject to yearly review)
- Graduation fee: HK$400

* non-refundable, to be paid at the time of application

Successful applicants will be expected to pay the programme fee for Semester A and graduation fee within 2 weeks of notice of admission.

Application

Application materials can be obtained

- online from the University’s website at www.cityu.edu.hk/prospectus; OR
- in person from the Distribution Counter located at the University Concourse, Floor 4 (Green Zone), Academic Building, City University of Hong Kong; OR
- by post to the Department of Computer Science, City University of Hong Kong, Tat Chee Avenue, Kowloon (please mark the programme code BP12).

Application form can be submitted

- online at www.cityu.edu.hk/admo/apply.htm; OR
- in person to the collection box outside the ARRO Service Centre (beside Hang Seng Bank), 3/F Academic Building, City University of Hong Kong; OR
- by post to the Admissions Office, City University of Hong Kong, Tat Chee Avenue, Hong Kong.

Deadline For Application

31 March 2005

Applications for this programme are processed on a rolling basis and review of applications will start before the deadline and continue until all places are filled. Therefore, early applications are strongly encouraged.

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.