Academic Development for the 2005-2008 Triennium

Prior to the beginning of each three-year funding period (the triennium), UGC asks us to submit our Academic Development Proposals (ADP), containing our plans and projections. The ADP for the 2005-2008 triennium included a request for a significant expansion of funded research postgraduate (RPg) student numbers, and a bid for 179 of the new places being earmarked by UGC for intake into the second year of study. This was submitted in early March 2004, and an informal discussion was held with the Chairman of the Core Group on Academic Development Proposals, Sir Brian Fender, on 15 March. At the meeting, we were informed that the prospects for additional RPg numbers were not good, and we were asked to provide a supplemental submission indicating our priorities.

Ultimately, UGC decided to hold our allocation of funded RPg places to the current 850. We are permitted to enroll up to an additional 20%, but these do not attract any additional funding. First-year undergraduate intake was held at the current 1,811, and we were allocated 57 of the second-year intake places, all for programs in Engineering, with the great majority for information technology disciplines.

In order to better communicate the parameters of our development in the next triennium, the ADP has been rewritten into a new document, Academic Development 2005-2008, that incorporates the UGC decisions. This document also provides a compilation of the University's Mission and Vision, the Role Statement agreed with UGC, and objectives and strategies for our major areas of activity. The section on Programs and Enrolments, and three associated Appendices, provide detailed breakdowns of the student numbers approved by UGC.

In recent years, the UGC has become more active in monitoring compliance with the approved ADP. In particular, we will be expected to explain significant deviations from the approved enrolment in each program. In addition, UGC expects to receive advance notice of any new program initiatives before we begin recruiting students for them.

Copies of Academic Development 2005-2008 have been sent to members of the Senate, and a copy in PDF format is available for download from the Academic Affairs web site. Please click onto “AA Publications”.

AAO Homepage
Face-lifted

For colleagues who have recently visited our homepage, they may have noticed its totally new “look and feel”- thanks to the good work of PTC! After the revamp, users should find it easier to look for the information they need.

The next time you surf on the Web, do drop by our new homepage at http://www.ust.hk/vpaao/! We would welcome your feedback on the homepage. Please write to vpaao@ust.hk.

Authority for Signing of Agreements

The University enters into different types of agreements and contracts with outside organizations. Members of the University should note that, except under delegated authority, only an officer of the University is authorized to sign any contract or agreement that commits University resources. “Officers of the University”, in such cases, are the President and the three Vice-Presidents, in their respective areas of responsibility.
English as the Medium of Instruction

It is the University policy that English is the medium of instruction in all formal instructional activities including lectures, tutorials and laboratory sessions. As the University endeavors to diversify and internationalize the student body, the number of non-local students is expected to increase rapidly. To ensure that all students may learn effectively, it is important that our teaching staff adhere to using English as the medium of instruction in classes, except approved otherwise.

167 Mainland Students Enrolled in UG Programs

The University is pleased to receive the group of 167 mainland students to the campus in late August. This is the largest single cohort of students the University has ever recruited from the Mainland. Students come from different regions and cities, including Beijing, Shandong, Shanxi, Zhejiang, Shanghai, Jiangsu, Sichuan, Chongqing, Hubei, Fujian, Guangdong and Shenzhen.

Although the intake number has more than doubled as compared to last year, the intake quality remains high. In general, the average JEE (the Joint Entrance Examination taken by students in the Mainland) score attained by our students is well above the minimum score required by band one Mainland universities.

These students are now following the Preparatory Year (commonly known as ‘Year 0’) program in this academic year. From this year onwards, the Year 0 students are here taking classes on the HKUST campus. The Year 0 program is a special program tailored to the needs of the mainland students to get them prepared for the undergraduate studies, which normally expects students to have a preparation equivalent to the HK Advanced Level attainment. The program embraces required courses in language, mathematics, moral philosophy, introduction to the Hong Kong society, as well as other courses designated by individual schools. For instance, students in the School of Business and Management will need to study one other second language such as French, Japanese or Latin. They will move onto Year 1 of their major program upon completion of this preparatory year.

Revised Regulations Governing Credit Transfer for TPG Programs

Following the lifting of the minimum credit requirement for taught master’s programs by the Senate in December 2003, it had become possible for a student with relevant PG qualifications through credit transfer to earn another taught master’s degree at the University within a very short period of time. The repeated use of the same set of PG course credits to earn different PG awards would jeopardize the academic value of our taught master’s degrees. To address this issue, Senate endorsed, at its June 2004 meeting, a tightening of the existing regulations governing credit transfer for PG programs. The revised regulations apply to all new student cohorts joining PG programs of the University from 1 July 2004:

(a) Credits previously used to satisfy the requirements of other academic qualifications may not be transferred to a taught PG program.

(b) An exemption to the stipulations in (a) above is that credits earned in postgraduate diplomas of the University that are connected with specific articulated taught master’s programs may be transferred to the intended taught master’s program, with the approval of the program coordinator.

(c) Arrangements for credit transfer for research degree programs, i.e. MPhil and PhD, are exempted from the stipulations in (a) above.

(d) Credits for transfer must be at Grade B or above.

Two Rounds of Degree Conferment

Good news to students – to shorten the time gap between students’ completion of a program and the actual degree conferment, the University has introduced another degree conferment date in April/May every year. Students approved for graduation from the third week in October until one week prior to the degree conferment date in April/May will have their degrees conferred in April/May. All other students whose graduation approval date falls outside the period mentioned above will have their degrees conferred at the November Congregation. Students should note that there will not be an additional Congregation or any form of ceremony in April/May. Graduates who have their degree conferred in April/May will still attend their graduation ceremony at the November Congregation.
Teaching Innovation Awards 2004

In order to recognize and encourage faculty and instructors who have made a sustained effort to improve the quality of their students’ learning by the introduction of innovative practices or technologies, the University has instituted the biennial Teaching Innovation Awards.

For the second Teaching Innovation Award in May 2004, four awards were made. The brief stories of the winners are given here and their full stories can be found at the website: http://celt.ust.hk/

The teaching team in the Department of Physics (Prof K Y Michael Wong, Prof Tai Kai Ng, Prof Philip IK Sou and Prof Kwok Kwong Fung) extends undergraduates’ project courses into the local community by leading students to research on a topic and then present or demonstrate their findings to local secondary school students.

Prof Rudolf Fleischer from the Department of Computer Science makes innovative use of the Just-in-Time Teaching (JiTT) framework to challenge his students to take charge of their own learning by providing them with instant feedback and encouraging them to help each other learn.

Prof Rashmi Adaval from the Department of Marketing constructed an innovative curriculum. It went from concept presentation, to deep understanding, to simulated application all embedded in a narrative course structure.

As a leader in teaching language with technology, Dr John Milton of the Language Center developed an Online Course Management System that enhances language learning by facilitating active learning.

Second Teaching and Learning Symposium

Teaching Innovations: Continuous Learning and Improvement

The Second HKUST Teaching and Learning Symposium was held in May 2004, with the aims to nurture and showcase continuous improvement in the quality of teaching and learning at the University; emphasizing collaboration of practices and innovations within the University community. Apart from a teaching and learning exhibition, over 30 paper presentations were given by the UST teaching community and there was a keynote speech by Prof Jim Boyle from the University of Strathclyde and a luncheon seminar given by Dr Stephen Draper from the University of Glasgow.

The abstracts and the video-taped presentations are available at the website: http://celt.ust.hk/tlsymp04/papers.html.

The Center on China’s Transnational Relations

The Center on China’s Transnational Relations has been established in the School of Humanities and Social Science with funding support from the Hang Lung Group. This new center will focus on the flows of goods, services, people, technology and capital across China’s borders. It will also look at China’s influence within the Asia-Pacific region. The Center’s director is Professor David Zweig.

Summer Course on Marine Biogeochemistry

The AMCE Program offered their second summer course on “Marine Biogeochemistry”. The intensive summer course was given by Prof Hutchins from the University of Delaware and Prof Santschi from Texas A & M University. The course was well attended with 33 graduate students from UST and sister universities in Hong Kong.
## Academic Personnel News

### Substantiations and Promotions

The following faculty members who have been substantiated and promoted to Associate Professor on 1 July 2004.

**School of Science**
- Chun LIANG, BICH
- Sheng-Cai LIN, BICH
- Weijia WEN, PHYS

**School of Engineering**
- Chiew Lan TAI, COMP

**School of Business and Management**
- James R FREDERICKSON, ACCT
- Mike Ka Pui SO, ISMT
- Yan XU, ISMT

**School of Humanities and Social Science**
- Virgil Kit-Yiu HO, HUMA
- Agnes Shuk Mei KU, SOSC

### Substantiations

The following faculty members have also been granted substantiation upon their successful completion of the academic review in Fall 2003.

**School of Science**
- Allen MOY, Professor, MATH
- Penger TONG, Professor, PHYS

**School of Engineering**
- Long QUAN, Associate Professor, COMP
- Qiang YANG, Associate Professor, COMP
- Vladimir G CHIGRINOV, Associate Professor, ELEC

### Promotions

The following faculty members who have been promoted to Professor on 1 July 2004.

**School of Science**
- Mingjie ZHANG, BICH
- Pei Yuan QIAN, BIOL
- Xiao-Yuan LI, CHEM
- Yiying YAN, CHEM
- Kun XU, MATH
- Weikun GE, PHYS
- Zhao-Qing ZHANG, PHYS

**School of Engineering**
- Charles WW NG, CIVL
- Hai YANG, CIVL
- Mounir HAMDI, COMP
- Zexiang LI, ELEC
- Chin Tsau HSU, MECH

**School of Business and Management**
- Guochang ZHANG, ACCT
- Songnian CHEN, ECON
- Sudipto DASGUPTA, FINA
- Albert Y HA, ISMT

**School of Humanities and Social Science**
- Leonard Kwok-Kou CHAN, HUMA

### Regular Faculty Appointments

(on board between 1 February to 31 August 2004)

**School of Engineering**
- Yunhai LIU, Assistant Professor, COMP (PhD, Michigan State University)
- Huamin QU, Assistant Professor, COMP (PhD, State University of New York at Stony Brook)
- Kin Nang LAU, Associate Professor, ELEC (PhD, University of Cambridge)
- Liu HONG, Assistant Professor, IEEM (PhD, Northwestern University)
- Rachel Q ZHANG, Associate Professor, IEEM (PhD, Northwestern University)

**School of Business and Management**
- Charles Youyang HSU, Assistant Professor, ACCT (PhD, Purdue University)
- Kai Wai HUI, Assistant Professor, ACCT (PhD, University of Oregon)
- Shibin XIE, Assistant Professor, ACCT (PhD, University of Iowa)
- Tanjim HOSSAIN, Assistant Professor, ECON (PhD, Princeton University)
- Danyang XIE, Associate Professor, ECON (PhD, University of Chicago)
- Mungo WILSON, Assistant Professor, FINA (PhD, Harvard University)
- Seunghee YU, Assistant Lecturer, ISMT (MS, Carnegie Mellon University)
- Maria GALLI, Assistant Professor, MARK (PhD, INSEAD)
- Liang GUO, Assistant Professor, MARK (PhD, University of California, Berkeley)
- Anirban MUKHOPADHYAY, Assistant Professor, MARK (PhD, Columbia University)

**School of Humanities and Social Science**
- Yongshun CAI, Assistant Professor, SOSC (PhD, Stanford University)

### Visiting Faculty Appointments

(on board between 1 February to 31 August 2004)

**School of Science**
- David Allen HUTCHINS, Visiting Scholar, DSCI (PhD, University of California, Santa Cruz)
- John Stuart PEARSE, Visiting Scholar, DSCI (PhD, Stanford University)
- Vicki Buchsbaum PEARSE, Visiting Scholar, DSCI (PhD, Stanford University)
- Jan A PECHENIK, Visiting Scholar, DSCI (BA, Duke University)
- Peter Hans SANTSCHI, Visiting Scholar, DSCI (PhD, University of Berne)
- Zion Shan WANG, Visiting Scholar, DSCI (PhD, University of North Carolina)
- David Sunderland WETHY, Visiting Scholar, DSCI (PhD, University of Michigan)
- Sarah Ann WOODIN, Visiting Scholar, DSCI (PhD, University of Washington)
Vidmantas Kastytis BENTKUS, Visiting Scholar, MATH (PhD, Moscow University; Doctor of Sciences, Vilnius University)
Tianping CHEN, Visiting Scholar, MATH (Graduate, Fudan University)
Pavle PANDZIC, Visiting Assistant Professor, MATH (PhD, University of Utah)
Zhongci SHI, Visiting Scholar, MATH (Graduate, Steklov Institute of Mathematics)
Jiping ZHANG, Visiting Scholar, MATH (PhD, Peking University)
Dongmin CHEN, Visiting Scholar, PHYS (PhD, The City College of New York)

School of Engineering
Chi Bun CHING, Visiting Professor, CENG (PhD, University of Aston)
Andrejs KOLISKINS, Visiting Associate Professor, CIVL (DSc, Leningrad University)
Chi Wing FU, Visiting Assistant Professor, COMP (PhD, Indiana University)
Patrick Chak Kuen HUNG, Visiting Assistant Professor, COMP (PhD, HKUST)
Jianquan YAO, Visiting Professor, ELEC (PhD, Tianjin University)

School of Business and Management
Matthew Bowen KREPPS, Visiting Scholar, ECON (PhD, Harvard University)
Lung Fei LEE, Visiting Professor, ECON (PhD, University of Rochester)
Vyakaranam Ravi ANSHUMAN, Visiting Associate Professor, FINA (PhD, University of Florida)
Kin Wai CHAN, Visiting Assistant Professor, FINA (PhD, MIT)
Qing WANG, Visiting Associate Professor, FINA (PhD, University of Chicago)
Tung Xuan BUI, Visiting Scholar, ISMT (PhD, University of Fribourg, New York University)
Javier Fernandez CABRERA, Visiting Scholar, ISMT (PhD, Princeton University)
Weiyin HONG, Visiting Scholar, ISMT (PhD, HKUST)
Viswanath VENKATESH, Visiting Professor, ISMT (PhD, University of Minnesota)

School of Humanities and Social Science
Hao CHANG, Visiting Professor, HUMA (PhD, Harvard University) (Professor Emeritus, HKUST)

Administrative Appointments
Office of the Vice-President for Academic Affairs
Ting-Chuen PONG - reappointed Associate Vice-President for Academic Affairs, concurrent with his appointment as Professor of Computer Science, with effect from 1 July 2004.

School of Science
Shiu Yuen CHENG - appointed Dean of Science, concurrent with his appointment as Professor of Mathematics, with effect from 14 September 2004.
Nancy Yuk-Yu IP - reappointed Associate Dean of Science, in addition to her appointment as Head and Professor of Biochemistry, with effect from 15 February 2004.
Tai-Kai NG - appointed Associate Dean of Science, concurrent with his appointment as Professor of Physics, with effect from 15 September 2004.

School of Engineering
Helen C SHEN - reappointed Associate Dean of Engineering, concurrent with her appointment as Associate Professor of Computer Science, with effect from 1 June 2004.

School of Business and Management
Wilfried R VANHONACKER - appointed Head of Marketing, concurrent with his appointment as Professor of Marketing, with effect from 1 July 2004.

School of Humanities and Social Science
William TAY - appointed Acting Dean of Humanities and Social Science, concurrent with his appointment as Professor of Humanities, with effect from 1 July 2004.

(Continued on P6)
The one thing that seems to be a characteristic of virtually all modern democratic elections is the desire of the electorate to vote against somebody or something at which they have taken offense, rather than for a candidate they really believe in. Maybe finding a politician to believe in has become an increasingly difficult task. Here in Hong Kong, if the media coverage is to be believed, a vote for the “pan-Democrats” was really a vote against the Government. In fact, the grouping of a number of distinct parties and independent candidates into a “pro-democracy camp” was based as much on their shared opposition to Mr Tung and his Government as on their agreement on other issues. By this reasoning, it appears that we just had an election for the Chief Executive by universal suffrage right here in 2004, despite the ruling of the Standing Committee of the NPC. The only difference is that he was guaranteed to keep his job no matter what the outcome of the vote is. Given the other differences between the local election system and one that can be explained to a person of ordinary intelligence, this is quite a minor point.

Hong Kong is not unusual in this emphasis on the negative. In the US Presidential election, the members of one party seem to agree more on their opposition to the incumbent than on support for their candidate. In fact, the polls show that “Anybody but Bush” does somewhat better than John Kerry in the contest for the White House. “Anybody but a friend of Bush” seems to have been the big winner in the Spanish elections as well. The state of mind known as the State of California went even further in the pursuit of negativity not long ago, by holding an election specifically for the purpose of letting the people vote against the incumbent Governor. The experience was slightly diluted by asking the voters to also guess who they thought might do a better job, but chances are they got more satisfaction out of voting to terminate the man in the job than they did in electing the Terminator to replace him.

In the spirit of promoting orderly progress towards political development, I suggest that Hong Kong take advantage of this unquenchable (and understandable) desire to stick it to the politicians, and introduce yet another twist to the proportional representation voting system – give each voter one positive vote and one negative vote. The total votes for a candidate (or a list of candidates) would then be the difference between the positive and negative votes cast. Anyone with a net positive vote would have a pretty good chance of getting into office. In fact, if voters were given the option of using only their negative vote, some candidates might even get in with a net negative count. Another advantage of this system is that, for the first time, it enfranchises the “undecided” voters, who can simply cast their positive and negative votes for the same candidate (indeed, any candidate) and thereby participate in democracy without having to make up their minds.
Achievement Highlights

- **Prof Irene Lo (Civil Engineering)** has been selected by the American Society of Civil Engineers (ASCE) as the recipient of the 2004 James Croes Medal. The highly coveted and prestigious Medal is awarded for her research paper on innovative waste containment barriers for subsurface pollution control that is judged worthy of special commendation for its merit as a contribution to engineering science. Prof Lo is the first Asian researcher for 15 years to receive this Award.

- **Prof Ivan Sham (Mechanical Engineering)** has been awarded a Croucher Foundation Fellowship. With the Fellowship, Prof Sham will undertake research into the mechanical behavior of biomaterials and their responses to the environment at the Biomechanics Laboratory, Free University of Berlin, Germany, for two years starting from 1 February 2005.

- **Prof W H Ki and Prof C Y Tsui (Electrical and Electronic Engineering)** won the Outstanding Design Award in the University LSI Design Contest organized by the IEEE Asia and South Pacific Design Automation Conference (ASPDAC) in Japan in February 2004. This novel scheme forms a key component for variable voltage supply design in low power mobile applications.

- **Five professors were awarded the Business School Franklin Prize for Teaching Excellence.** Professors Hongtao Zhang, Yan Xu, Kar Yan Tam and James Thong of ISMT were winners of the Franklin Prize Spring 2003, along with Prof Kevin Chen of Accounting.

- **Thong Wang Fai (Civil Engineering)** won the First Prize of the best paper from HKIE Materials Division in May 2004, with his thesis “Resistivity Measurement for Cement-based Materials”.

- **Civil Engineering students** won the HKIE Geotechnical Division student prizes:
  - Best Performance in Geotechnical Engineering Subjects – Tong Wing Sze;
  - Best Final-year Geotechnical Project Award-Winner: Lee Wai Hang with his project “Centrifuge and Numerical Modelling of Single Jacked-in Pile in Dense Sand”; First runner-up: Chung Yee Man Ivy with her project “Influence of Sleeved Pile on the Stability of Retaining Wall”.

- **Zhang Lei (PhD, Computer Science)** has received the Best PhD Paper Award of the 5th ACM Postgraduate Research Day, with his presentation “Provisioning Virtual Private Networks in the Hose Model with Delay Requirements”.

- **Tang Jiqing (MPhil, Industrial Engineering and Engineering Management), Leung Tsz Kin (Computer Science) and Wong Long Sing (Computer Engineering)** won the champion of the ACM Local Programming Contest 2004. This is the second time for HKUST to gain champion of this competition since 1992.

- **The Final Year Project of Tang Man Wai and Wu Sui Hin (Computer Engineering)** “PDA-based Tour Guide and Planner for Hong Kong” has won the Best Project Idea Award and Certificate of Distinction in the Intervarsity Internet Technologies Exposition and Conference (IIiTEx) 2004.

- **In summer, the team of four year 3 SB&M students** – Fung Wai Ying, Derek Lee Tung Yan, Winnie Lui Wing Yee and Ng Chi-wai – entered the case competition, Thammasat Undergraduate Business Challenge in Bangkok. They were required to formulate a strategy for a car part company, AAPICO Hitech, to grow and prosper, and present their ideas to a panel of judges. The team was placed first runner-up, behind Thammasat University.

Please send good news in relation to the achievements of yours or your students’ to Betty Law of VPAAO. (Tel: 2358 6132  email: aabetty)
The HKUST Academic Achievement Medal is presented annually to a selected few top undergraduate students in the graduating class of the year. This is the highest academic honor bestowed by the University upon undergraduates upon graduation.

The selection criteria for the Medal are extremely rigorous: they must attain a final CGA of at least 10.75 (maximum CGA attainable is 12.00), and no record of course failure during their study here.

The highest CGA attained this year is 11.41. In addition, seven of the medalists will be graduating with the dual program designation after having successfully completed two major programs of study within the normal three-year duration of study.

On the left is a list of students who will receive the Medal this year at the University Congregation in November.

### School of Science
- LEE Chi Wai, Jeffrey
- TAM Chi Kong

### School of Engineering
- LAM Chi Ho
- CHAN Cheuk Ki
- CHENG Kan Leung
- CHEUNG Victor
- LEUNG Man Fung
- LAU Ka Ho
- NG Kar Wei
- LEUNG Pak Kin

### School of Business and Management
- FUNG King Shing
- CHAN Hang Ting
- HO Yat Fan
- HO Yat Kwan Ada
- TANG Ki Yuen
- HO Fung Yi

### President's Cup 2004

The President's Cup is an annual competition of undergraduates in academic, scientific and technological achievements. Twenty-five teams participated in the competition. Here is the list of the award winning projects and the teams:

#### President's Cup Winner
- A New Coolant Cavitation Generator for Precision Machining of Silicon Based Brittle Materials
  - LAI Hon-keung (MECH, Year 3)
  - YU Pui-yan (MECH, Year 3)

#### Gold Awards
- Fabrication of Submicron-scaled Spirals by Holographic Lithography
  - LEE Chi-wai, Jeffrey (PHYS, Year 3)
  - PANG Yee-kwong (PHYS, Year 3)
- On the Multiplicity of Integer Roots of Chromatic Polynomials
  - DU Yi-ping (MATH, Exchange-in)
  - WANG Huan-huan (MATH, Year 1)

#### Silver Awards
- Multi-Severity-Level Cirrhosis Classification System Based on Ultrasonic Liver Image
  - LAW Wai-kong (CPEG, Year 3)
  - LAI Tsz Chung (COMP, Year 3)
- Hotspot Dispersal during Neuromuscular Junction Formation
  - QIAN Yue-ping, Katherine (BIOL, Year 3)

### Honorable Mentions

- Spatial Network Database for Travel Guide System in Wireless Devices
  - TSE Yuen-Bong, Vincent (COMP, Year 3)
  - WONG Sze-lee, Dennis (COMP, Year 3)
- Optical Micro-pillar Resonators Coupled with Fiber Tapers for Optical Communications
  - WAN Wen-jie (ELEC, Year 3)
- Robot Soccer – The Flexible, Fast & Real-Time Motion Predicting System
  - LUI Shing-fai (ELEC, Year 3)
  - LEE Chung (COMP, Year 2)
  - MOU Pedro Antonio (CPEG, Year 1)
- A New File-Sharing System for Smart Mobile Devices
  - CHU Kin-fat (COMP, Year 3)
  - LEE King-ho (COMP, Year 3)
  - LO Yat-fai (COMP, Year 3)
- Location Choices of Park'n Shop and Welcomein Hong Kong
  - FAN Ting-ting (ACCT, Exchange-in)
  - WONG Ki (ISMT, Year 2)
- Path Finder Robot
  - CHIU Ka-ho Ivan (MECH, Year 3)
  - LI Man-pong, Charles (MECH, Year 3)
  - WONG Wing-chi (MECH, Year 3)
  - LI Hoi-yin, Candy (MECH, Year 3)
  - LAM So-man (MECH, Year 3)
- Novel Technology for Wood and Bamboo Recycle
  - LI Jing (CENG, Exchange-in)
  - JIANG Yi-jun (CHEM, Exchange-in)
  - KO Sin-man (CHEM, Year 1)