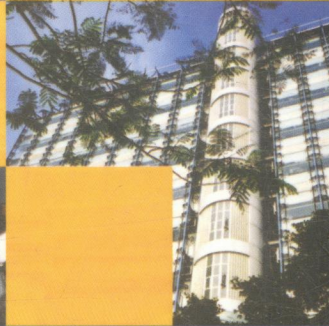
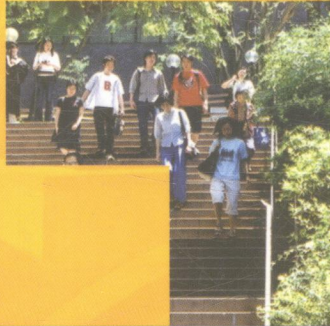
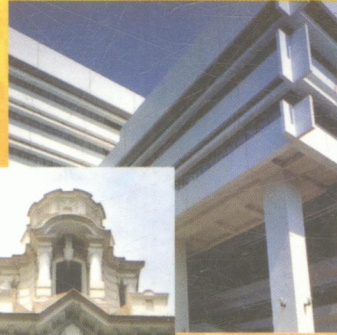




# GRADUATE SCHOOL THE UNIVERSITY OF HONG KONG

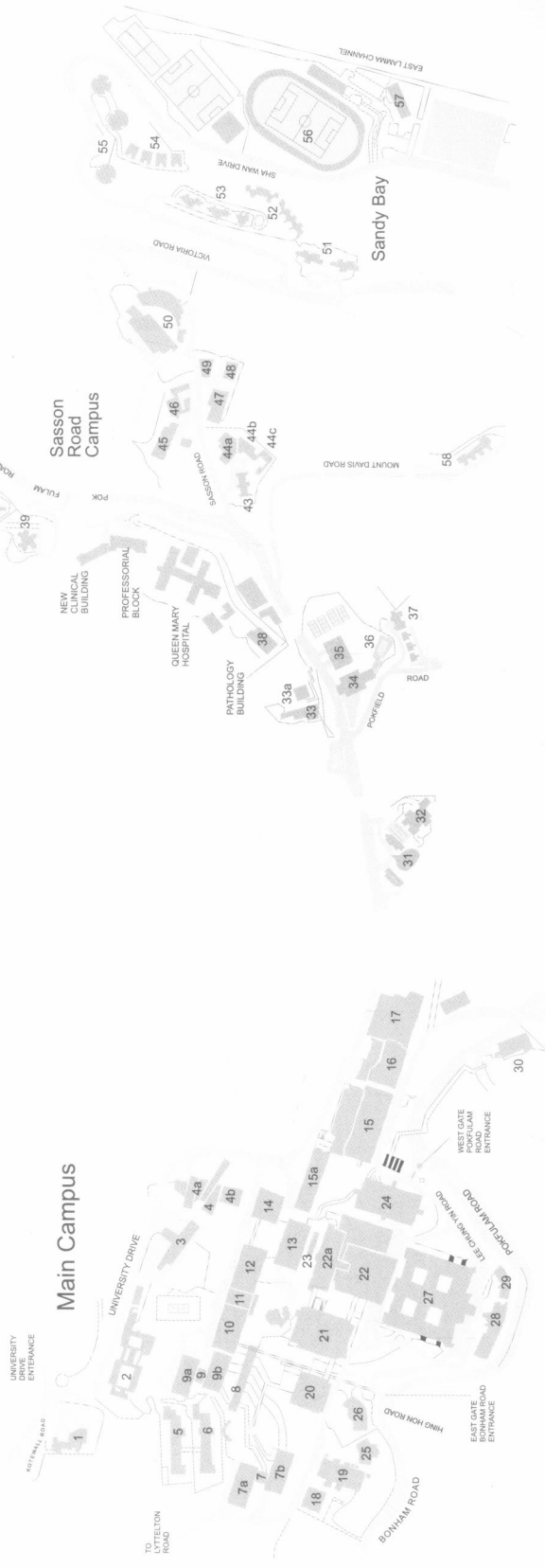


# MPhil and PhD Studies at The University of Hong Kong

Guide to Application for Admission

## 2003-2004





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## THE UNIVERSITY'S VISION

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The University of Hong Kong, as a pre-eminent international university in Asia, seeks to sustain and enhance its excellence as an institution of higher learning through outstanding teaching and world-class research so as to produce well-rounded graduates with lifelong abilities to provide leadership within the societies they serve.

## THE UNIVERSITY'S MISSION

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**The University of Hong Kong will endeavour**

- To advance constantly the bounds of scholarship, building upon its proud traditions and strengths;
- To provide a comprehensive education, developing fully the intellectual and personal strengths of its students while developing and extending lifelong learning opportunities for the community;
- To produce graduates of distinction committed to lifelong learning, integrity and professionalism, capable of being responsive leaders and communicators in their fields;
- To develop a collegial, flexible, pluralistic and supportive environment that will attract, retain and nurture scholars, students and staff of the highest calibre in a culture that inspires creativity, learning and freedom of thought, enquiry and expression;
- To engage in innovative, high-impact and leading-edge research within and across disciplines;
- To be fully accountable for the effective management of public and private resources bestowed upon the institution and act in partnership with the community over the generation, dissemination and application of knowledge;
- To serve as a focal point of intellectual and academic endeavour in Hong Kong, China and Asia and act as a gateway and forum for scholarship with the rest of the world.

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# The University of Hong Kong

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## General Information

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The University of Hong Kong, founded in 1911 to take over from the Hong Kong College of Medicine (established in 1887), is the oldest tertiary institution in Hong Kong. The main estate is situated on the north-western slopes of Hong Kong Island and enjoys the privilege of overlooking Victoria Harbour.

In the year 2001-2002, the University has a student population of over 14,300, including 9,100 undergraduate students and 5,200 postgraduates students (of which 1,600 are MPhil and PhD students). From the modest beginnings of only two faculties, the University has grown to embrace almost all the major areas of teaching and research and it can confidently claim to be one of the best and most well-established universities in the region. There are now ten Faculties - Architecture, Arts, Business & Economics, Dentistry, Education, Engineering, Law, Medicine, Science and Social Sciences, offering more than 550 first degree programmes and 20 Master's degree curricula. In addition, all Faculties and their departments provide teaching and supervision for research (MPhil and PhD) students.

The university is a self-governing corporation, which draws its income from endowments, grants from the Hong Kong SAR Government, and fees.

## Research Postgraduate Studies and Research at The University of Hong Kong

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Research postgraduate students are an important and valued part of the University. They currently make up 11.2% of the total student population of 14,300. The University also values the important role of non-Hong Kong graduate students (31.9% of the total research postgraduate student population of 1,600 coming from 38 countries in providing intellectual stimulation and making contribution to the social and cultural life of the University. International graduates are attracted to HKU mainly because of its high international reputation as a world class research university and also because of its use of the English language as the medium of instruction.

The University recognizes that quality teaching, particularly from a strong research base, is often the stimulus for graduates to embark upon research studies. As the leading comprehensive research University in Hong Kong and the region, we aim to maintain high quality research and postgraduate activities across a broad spectrum of disciplines, and to encourage work of a multi-disciplinary nature. In this connection, the University has identified and provided support to various "Areas of Excellence" as well as proposals that will make leading-edge contributions to the academic community. Many of these areas have developed extensive international networks and strong inter-institutional collaboration work.

Graduates of the University are employed in high level positions in universities, government, business and industry in Hong Kong and around the world. According to a recent survey, many of our research graduates were holding senior academic positions in local tertiary institutions and others were senior academics and/or active researchers in overseas universities/institutions. Some of them were working in prominent universities such as University of Cambridge, University of Oxford, Yale University, Massachusetts Institute of Technology, etc.

The University offers MPhil, 3-year PhD (for those who already have a research Master's degree) and 4-year PhD (for those who have a Bachelor and/or a taught Master's degree) programmes. In addition to the long-established one-to-one mentorship system of supervision, a coursework component has been introduced that aims to provide research training to assist the MPhil and 4-year PhD students to complete their studies within their study period.

The University has excellent infrastructure, services and facilities to support postgraduate studies. Postgraduate studentships, scholarships, research grants and conference/travel grants are provided to high calibre research students. All full-time local research students may be eligible to apply for financial assistance made available by the government. The world class library and computer facilities ensure that students can have access to the best learning and research environment. The Graduate House and graduate student hostels provide accommodation for postgraduate students as well as amenity facilities and a focal point for postgraduate activities. Postgraduate students can have access to student and medical services and sporting and

leisure facilities. They will also have opportunities to join the social life of the University through various activities organized by the University and student associations.

There is strong emphasis on the advancement in communication technologies and multi-media teaching within the university in the past years, the university has endeavoured to create a digital campus to encourage teachers and students a wider use of information technology as well as to benefit from efficient electronic information exchange.

The University has currently over 1,100 teaching and research staff supported by government block grant who are recruited internationally and who are highly visible in cutting-edge research and international publications. They form a strong team in the provision of high quality postgraduate programmes. The University is committed to fulfilling its mission to offer the highest standards of teaching, research and scholarship by continuing to recruit high quality staff internationally.

## Medium of Instruction and Examination

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The medium of instruction of the University is English except in the Department of Chinese for which it is either Cantonese or Putonghua (Mandarin). All applicants for admission are expected to be fluent in English. Applicants for admission to higher degree studies in Chinese must also be fluent in both written and spoken Chinese. Applicants for admission may be required to sit for English language tests or examinations conducted either by the University or by a public examination authority (see section of "General Qualifications for Admissions").





# Graduate School

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Graduate School was established by the Senate in June 1998 to replace the former School of Research Studies. The Graduate School sets policies and guidelines on research postgraduate education (the research degrees of MPhil and PhD), and is responsible for the implementation. The School serves as a focus in the University for the affairs of all research postgraduate students, and its major roles are:

- to provide supporting services for prospective research students, current research students and staff engaged in supervision;
- to monitor and review the admission process and the academic progress of research students;
- to determine the results of research candidates on the recommendation of the Boards of Examiners;
- to organise courses on thesis writing and research skills and methods as part of the core programme for MPhil and 4-year PhD studies;
- to disseminate good practice and ensure that it is applied in faculties/departments;
- to maintain a regular review mechanism and provide feedback for policy considerations;
- to participate in the formulation of policy on a wide range of issues affecting research students, including residential accommodation, postgraduate studentships, research support and other welfare;
- to prepare and maintain guidelines for students and their supervisors, to ensure the effective and efficient conduct and completion of their candidature;
- to advise on quality assurance and the academic audit of graduate training and supervision;
- to organise training workshops in research supervision for new supervisors of research students;
- to organise an induction programme for new research students to introduce them to the University and the wide range of support services provided for their benefit;
- to organise seminars and lectures of general interest to postgraduate students and helping to fund distinguished visiting academics who will interact with postgraduate students;
- to compile data on sources of financial support for personal and research needs and on all the other information of interest to graduate students, including details of opportunities for further study outside Hong Kong;
- to prepare and maintain a database on research postgraduate students;
- to keep up-to-date with international developments, innovations and practices in graduate education, especially in North America (where the University is an international associate member of the Council of Graduate Schools), Europe and China.

The Dean of the Graduate School is Professor Anthony Yeh, who holds this position concurrently with his primary appointment as Chair of Urban Planning and Geographical Information Systems in the Centre of Urban Planning & Environmental Management. Professor John Burns, Chair of Politics and Public Administration, and Professor Francis Chin, Chair of Computer Science, work with Professor Yeh as Associate Deans. The School is governed by the Policy Board of Postgraduate Education which is a committee of the Senate and the School's main strategic and policy-making body. Under the Policy Board are the Board of Graduate Studies and the Board of Examination for Graduate Studies.

The School's office is located in Room P403 of the Graduate House (Tel: 2857 3470; Fax: 2857 3543; E-mail: [gradsch@hkucc.hku.hk](mailto:gradsch@hkucc.hku.hk); and homepage: <http://www.hku.hk/gradsch>).



# Research Degree

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Definitions

The University offers Master of Philosophy (MPhil), 3-year and 4-year Doctor of Philosophy (PhD) programmes. A successful MPhil thesis should represent the result of the candidate's research which displays some originality and which demonstrates a sound understanding of the field of study and the appropriate research methods, and a successful PhD thesis should represent the result of the candidate's research which should be an original contribution to knowledge and worthy of publication.

Candidates will conduct research work under the supervision of at least one member of the University's teaching staff. Candidates without a research Master's degree shall be considered for admission to a 4-year PhD programme, and those who hold research Master's degrees shall be considered for admission to a 3-year PhD programme. Candidates for the research degrees of MPhil and 4-year PhD will be required to follow an approved course of study and research including coursework. The objective of coursework component is to aid research work and preparation for writing the thesis. A candidate shall be required to take at least five but not more than ten courses as specified in the coursework syllabuses. The number of courses specified will include two compulsory courses offered or approved by the Graduate School. Please refer to the section of "Coursework Requirement" for details.

### A student may register as a full-time candidate when he or she holds

- (a) no employment; or
- (b) part-time employment (whether inside or outside the University), provided that the employment entails not more than 150 hours of work per annum; or
- (c) a University Research Assistantship, provided that the work undertaken in this capacity is focused on the topic of the holder's research degree study.

The status of the candidature must be affirmed in the form of a written declaration by the head of department, the supervisor(s) and the student.

A full-time candidate may hold a University postgraduate studentship or another postgraduate studentship or scholarship which is intended to enable him or her to study on a full-time basis.

## Period of Study

Candidates pursuing MPhil or PhD studies are first required to register provisionally for the degree and their registration is subject to a probationary period specified below. At the end of this probationary period and after submission of a detailed scheme of research the candidature shall be confirmed or terminated.

Degree	Full-time		Part-time	
	Study Period	Probationary period	Study period	Probationary period
MPhil	24 months	12 months	36 months	18 months
3-year PhD	36 months	12 months	54 months	18 months
4-year PhD	48 months	18 months	72 months	24 months

MPhil students may apply for transfer to PhD after confirmation of candidature and after completion of coursework requirements, provided that such transfer is approved at least 3 months prior to the expiry of the MPhil candidature. PhD students may apply for transfer to MPhil within the first 12 months (3-year PhD) or 18 months (4-year PhD) of candidature, in the case of full-time students; or within the first 18 months (3-year PhD) or 27 months (4-year PhD), in the case of part-time students.

The results of the research must be presented in the form of a thesis, which will be examined by both internal and external examiners. In addition, candidates are required to have an oral examination. Other examinations may be prescribed if they are deemed necessary.

Further details of the MPhil and PhD regulations are attached to the application form.

## Fields of Study

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Candidates may be accepted for research studies leading to the degree of MPhil or PhD by a teaching department of the University and by an academic centre/institute/school/unit. The principal areas of studies are listed in the chapters on the Faculties.

## Schedule of Fees for 2003-2004 (in HK\$)

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Application	\$150 (non-refundable)
Caution Money	\$350
Composition	
Full-time	\$42,100* p.a.
Part-time	\$28,070* p.a.

\*subject to revision

## Fee Payment

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The annual Composition Fees are normally payable by two instalments. Candidates are required to pay Composition Fees on first registration and thereafter during the period of study, and the Continuation Fees quarterly thereafter if they are permitted/required to study beyond such period.

# Coursework Requirement

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Compulsory Coursework Component

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The University of Hong Kong has introduced a compulsory coursework component in the MPhil and 4-Year PhD programmes starting from September 1999 and September 2001 respectively, aiming to aid students' research work and prepare for writing the thesis. All MPhil and 4-Year PhD students are required to satisfactorily complete 2 Graduate School core courses and 3 to 8 faculty/departmental courses before thesis submission, in which 2 Graduate School core courses and at least 50% of the faculty/departmental coursework requirements have to be completed before the end of the probationary period.

### Graduate School Core Courses

*The requirements of the Graduate School core courses are as follows:*

- *Core Course I* - compulsory
  - Introduction to Thesis Writing
- *Core Course II* - select 3 elective modules\* from the list below:
  - Writing Workshops I: Making your writing clear
  - Writing Workshops II: Reporting on other researchers' work
  - Oral English for Academic Purposes
  - Data Analysis
  - Transferable Skills
  - Ethics & Research
  - Logic & Critical Thinking
  - Safety in the Research Environment
  - How to Publish your Research (The Humanities & Related Disciplines)
  - How to Publish your Research (The Science & Related Disciplines)
  - Basic Quantitative Research Methods
  - Intermediate Quantitative Research Methods

\* There is a proposal to cut down the number of elective modules from three 8-hour modules to two 12-hour modules but this has not been confirmed and approved yet. Also, the list of elective modules is subject to changes.

### Faculty/Departmental Courses

Besides the Graduate School core courses, individual Faculties/Departments have additional course requirements. The requirements of the Faculty/Departmental courses are as follows:

# Coursework Requirement

Faculty/Department/Centre	Compulsory course(s) required	Elective course(s) required
<b>Faculty of Architecture</b>		
Architecture	1	2
Real Estate & Construction	1	2
<b>Faculty of Arts</b>		
Chinese	3	1 or 2 subject to Department's approval
Comparative Literature	Nil	3
English	2	3
Fine Arts	2	1
Geography	3	Nil
History	4	Nil
Japanese Studies	3	1
Linguistics	2	1
Music	4	Nil
Philosophy	3	0
<b>Faculty of Business &amp; Economics</b>		
School of Business	1	3
School of Economics & Finance	2	2
<b>Faculty of Dentistry</b>		
	1 (Triple course)	Nil
<b>Faculty of Education</b>		
- Division of Speech & Hearing Sciences	3	Nil
- All other Divisions	Nil	3
English Centre	1	2
Institute of Human Performance	Nil	3
<b>Faculty of Engineering</b>		
Civil Engineering	Nil	4
Computer Science & Information Systems	Nil	3
Electrical & Electronic Engineering	Nil	4
Industrial & Manufacturing Systems Engineering	Nil	3
Mechanical Engineering	1	2
<b>Faculty of Law</b>		
	1	2

Faculty/Department/Centre	Compulsory course(s) required	Elective course(s) required
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**Faculty of Medicine**

All MPhil / 4-year PhD candidates are required to take 3 Faculty / Department based courses, at least 2 Faculty/Department based courses should be satisfactorily completed within the probationary period. The remaining Faculty/Department based course can be taken after the probationary period.

**Faculty of Science**

Botany	1	2
Chemistry	1	2
Earth Sciences	2	1
Ecology & Biodiversity	3	Nil
Mathematics	3	Nil
Physics	1	2
Zoology	1	2

**Faculty of Social Sciences**

Politics & Public Administration	3	Nil
Psychology	3	Nil
Social Work & Social Administration	1	2
Sociology	4	0
Statistics & Actuarial Science	1	2

**Centre of Asian Studies**

All MPhil/4-year PhD candidates are required to take 1 compulsory course from the Centre and 2 elective courses from the Graduate School/the Faculty of Arts or Social Sciences.

**Centre of Buddhist Studies**

All MPhil/4-year PhD candidates are required to take 1 compulsory course from the Centre and 2 elective courses from the Master of Buddhist Studies programme/the Faculty of Arts or Social Sciences.

**Centre of Urban Planning & Environmental Management**

All MPhil/4-year PhD candidates are required to take 1 compulsory course from the Centre and 2 elective courses from the Centre/other specified departments/programmes.

**Journalism and Media Studies Centre**

All MPhil/4-year PhD candidates are required to take 2 compulsory courses and 1 elective course from the Centre.

**Social Sciences Research Centre**

All MPhil/4-year PhD candidates are required to take 1 compulsory course from the Centre and 2 elective courses from the Graduate School/the Faculty of Arts or Social Sciences.

# Coursework Requirement

## 3-Year PhD Students

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3-year PhD students are not required by the regulations to take coursework. However, they are welcome to enrol in any Graduate School courses which they find useful. Students who take these courses optionally will be assessed like all other students in class and their results including failures will be printed on their transcripts. (Note: The Faculty of Engineering also requires 3-year PhD students in the Department of Civil Engineering and the Department of Electrical and Electronic Engineering to take compulsory coursework before thesis submission. Please contact the Faculty of Engineering office for details.)

## Assessment

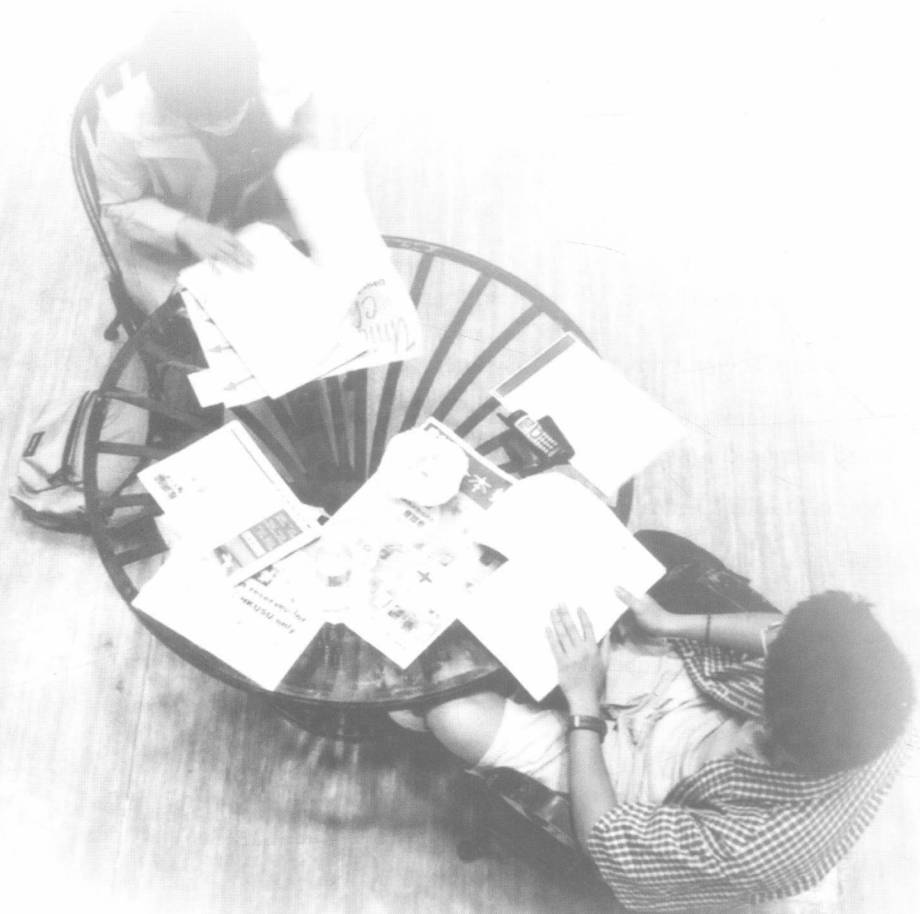
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All courses/modules are assessed on a pass/fail basis. Students who fail a course at the first attempt may be re-examined in the same course or an alternative course as determined by the Faculty Higher Degrees Committees. A student who has not satisfied the examiners in any course (which, for this purpose, includes the alternative course) in a second attempt may be required to discontinue his or her studies.

## Application for Exemption

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Students who have successfully completed the required course(s) or equivalent(s), either from The University of Hong Kong or a comparable institution, may apply for exemption of one or more course(s). Students will need to produce documentary evidence of having attended and passed the relevant course(s) with an equivalent standing in the University or other recognized academic institution. Exemption from courses is subject to the approval of the Board of Graduate Studies on a case-by-case basis, taking into account the individual circumstances.



# Admissions

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## General Qualifications for Admissions

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The basic qualification necessary for admission to research postgraduate studies, is a good honours degree from this University or an equivalent qualification from comparable institutions. In addition, certain degree courses have more specific requirements. Qualifying examinations to test the applicants' abilities to follow the prescribed courses and/or interviews may be conducted. Applicants with qualifications other than an honours degree are considered on their individual merits.

Applicants who wish to be admitted to higher degrees on the basis of a qualification from a university or a comparable institution outside Hong Kong where the language of teaching and/or examination is not English are required to obtain:

- a) a score of 550 or above (paper-based test) or 213 or above (computer-based test) in the Test of English as a Foreign Language (TOEFL) (applicants for admission to read for an MPhil or a PhD degree in the Faculty of Arts are also required to obtain a Test of Written English (TWE) score of 4 or above; those seeking admission to the Department of Chinese are exempted from the TWE requirement. Applicants who took the TOEFL should request the Educational Testing Service (ETS) to send an official score report to the University direct. For this purpose, the TOEFL code of the University is 9671. [It is a policy of the TOEFL Policy Council to validate scores which are obtained within a two-year period. The University therefore accepts this two-year validity rule in the admission exercise]; or
- b) a minimum overall band of 6 with no subtest lower than 5.5 in the International English Language Testing System (IELTS) (applicants of admission to read for an MPhil or a PhD degree in the Faculty of Arts are required to obtain an overall band of 7 with no subtest lower than 5.5 in the IELTS); or
- c) grade C or above in the Overseas General Certificate of Education (GCE); or
- d) grade C or above in the International General Certificate of Secondary Education (IGCSE); or
- e) grade C or above in the Cambridge Test of Proficiency in English Language; unless in exceptional circumstances they are exempted from this requirement.

Since places for postgraduate studies are limited, it may not be possible to offer admission to all qualified applicants.

## Application Procedures

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The main round applications for the research degree will be invited in late 2002/ early 2003 with closing date of 31 January 2003. Clearing round applications may be invited in May and September with closing dates of 31 May 2003 and 30 September 2003 if there are study places left. It is therefore to your advantage to apply early. MPhil candidates may commence their studies on 1 September 2003 or 1 January 2004. Applicants who are unable to commence their candidature on 1 September 2003 will be allowed to commence on 1 January 2004. Successful PhD applicants, however, may commence their candidature on the first day of any calendar month during a year. Application should be made at least three months before the intended date of registration.

Application form for all research postgraduate programmes are available from the Academic Services Enquiry Office and the Graduate School office, and can be downloaded from the Graduate School's website at [www.hku.hk/gradsch](http://www.hku.hk/gradsch). Applicants should state clearly the curriculum they wish to follow and the completed application forms should be returned to the Graduate School by the appropriate closing dates. Each application must include:

- a) The original or officially certified transcripts and certified copies of diplomas/certificates covering previous academic work showing the papers/subjects taken and the grades obtained. Documents which are not in English should be accompanied by a formal certified translation in English acceptable to the University. Applicants should also provide documentary evidence certifying their professional qualifications, if any. Photocopies of documents not properly certified will not be accepted.

- b) The names and addresses of two persons from whom academic references have been obtained.
- c) HK\$150 or US\$20 being the application fee (non-refundable). Overseas applicants should pay by bank drafts drawn on a bank in Hong Kong and made payable to "The University of Hong Kong".

All documents submitted in support of applications will be destroyed if the applications are unsuccessful.

Applicants for admission to read for the degree of MPhil or PhD should propose a field of study. For the degree of MPhil, applicants should prepare a statement of research interest, including their reasons for undertaking graduate work at The University of Hong Kong. However, applicants to the Faculty of Law and the Faculty of Arts should prepare a detailed research proposal. The MPhil research proposal for the Faculty of Arts should be 2-3 pages. MPhil and PhD applicants to the Faculty of Education is required to submit a 4-page Research Proposal Summary and the proforma is available at the Office of Research of the Faculty of Education. They should contact the heads of the appropriate departments about their proposed research before they submit their applications for admission. Other PhD applicants should prepare a detailed research proposal giving a clear description of the particular aspect of the field in which they are interested, and explaining the particular approach which they propose to take in studying the subject matter. Applicants may be refused admission if the University considers that they are insufficiently prepared or that the proposed research cannot be successfully pursued at the University.

## Concurrent Registration

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Concurrent registration by a student of this University for another postsecondary qualification either at this University or at another institution is not permitted, unless approval of the Senate has been obtained in advance.





# Overseas Applicants

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Cost of Living

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Overseas applicants offered places may be required to show that they are able to support themselves financially throughout the course before they are allowed to commence their studies. It is very difficult to provide a precise estimate of the likely cost because it will vary from one person to another depending on the type of accommodation selected and other factors. For students living in a postgraduate residence, approximately an average of HK\$120,000 per year is required to cover food, lodging and general living expenses excluding tuition fees. Fees and charges are likely to be revised upwards annually.

## Accommodation

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On-campus postgraduate residences are available and applications from overseas students are welcome. Students have to contact the postgraduate residences directly for enquiries on vacancies and booking. Competition for a place is however keen. For those unable to secure a residential place on campus, rental accommodation in the open market is also available. Admission to the University does not provide any guarantee of accommodation, which remains the responsibility of each student. It is therefore in the interest of overseas students to make definite arrangements for accommodation before arrival. Overseas students are advised to consult the Office of Student Affairs on accommodation matters.

Information on accommodation options for non-local students is available from the OSA website: <http://www.hku.hk/osa>.

## Visa

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All non-local students must obtain a visa in order to study in Hong Kong. The Hong Kong Immigration Department issues student visas to applicants enrolling in a FULL-TIME course in the University.

- **Students from overseas**

Application should be made at least two months in advance at your local Chinese Embassy. All applicants for a student visa to HKSAR are required to have local sponsor. Students coming to HKU should request the Office of Student Affairs to be the visa sponsor by completing the visa sponsorship application form which is obtainable from the Office of Student Affairs. A cost recovery handling charge is required. The visa sponsorship application form can also be downloaded from OSA website. Should students have difficulties in submitting their visa applications to the Chinese Embassy, please contact the Office of Student Affairs for advice and assistance.

- **PRC Students**

PRC students (with the exception of those with overseas permanent residency) must apply to the Hong Kong and Macau Affairs Office in Beijing. The applicant should also nominate the Office of Student Affairs as the visa sponsor by completing the visa sponsorship request form.

- All non-Hong Kong students who intend to stay for more than 6 months should obtain a Hong Kong Identity Card after their arrival.

## Other Information

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Please check our website [www.hku.hk/supportu](http://www.hku.hk/supportu). The following booklets are also available for overseas students:

- (a) Notes for International Students - for potential applicants;
- (b) Guide for Newcomers - for collection by students on arrival.

Copies of these booklets can be viewed on-line and are available from the Office of Student Affairs, Rm. 401 Meng Wah Complex. (Fax: (852) 2546 0184, E-mail: [osa@www.hku.hk](mailto:osa@www.hku.hk))

# Awards and Financial Assistance

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Postgraduate Studentships

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The purpose of Postgraduate Studentships is to provide selected students with financial assistance in the form of a scholarship to study full-time for the degrees of MPhil or PhD during the prescribed periods of study.

A Postgraduate Studentship holder may be required to undertake, under supervision, duties which carry educational benefits for the holder, as prescribed by the Head of the Department, Unit, Centre, School or Institute in which the holder is registered. The amount of such work shall not exceed 100 hours in any full twelve-month period (or pro rata if the period is less than twelve months). The undertaking of this work forms a part of the Studentship contract covered by the value of the Studentship, and no other payment for these hours of work may be made to a Studentship holder. However, in addition to these 100 hours, a Postgraduate Studentship holder may work for a maximum of a further 150 hours per annum, for which remuneration will be payable at a rate determined by the University from time to time. The work undertaken in this capacity shall be relevant to the holder's research training, beneficial to his/her studies and subject to the concurrence of the supervisor(s). The holder shall not otherwise undertake any employment either within or outside the University during tenure of the Studentship. The nature of the duties shall normally be:

- (a) assistance with research;
- (b) assistance with scheduled laboratory, studio and fieldwork classes and with tutorials;
- (c) assistance with the preparation of materials for scheduled classes;
- (d) assistance with marking practical notebooks and answers from exercise classes; and
- (e) assistance with invigilation of University degree examinations.

The annual value of the Studentships shall be determined by the University from time to time. There are at present 4 levels of PGS stipend, ranging from HK\$13,500\* to HK\$15,600\* per month.

Further details of the Postgraduate Studentships regulations are attached to the application form.

\* The rates are subject to changes

## Academic Awards

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The University administers a number of scholarships which are awarded to postgraduate students for outstanding academic achievements. Applications for postgraduate scholarships will be invited from eligible students all year round, and as such, students are requested to take notice of the invitation for applications that will be posted around the campus from time to time.

## Government Grants and Loans

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If you are admitted to a UGC funded full-time curriculum and need financial assistance for your studies at the University, you are strongly encouraged to apply to the means-tested loans and grants scheme administered by the Student Financial Assistance Agency. To qualify for the assistance, a student must have the right of abode in Hong Kong or have resided in Hong Kong continuously for three years prior to admission to the University. (The latter does not cover students staying in Hong Kong holding student visas.) To apply for assistance, you should

- a) obtain an application form from the Office of Student Affairs, or the Student Financial Assistance Agency, 11/F & 12/F, Cheung Sha Wan Government Offices, 303 Cheung Sha Wan Road, Kowloon; and

b) submit the completed form within one month following the commencement of the course to the Office of Student Affairs.

A non-means tested loan scheme is also available for application by both full-time and part-time students who meet the residency requirements. Application forms are also obtainable at the Office of Student Affairs.

## University Financial Assistance

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University funds are in general used to supplement government grants and loans. A limited number of bursaries and loans are available to local Full-time students who are in financial need. However, these are only very small assistance and should not be seen as an alternative to Government support. Applications are invited in early September each year. Those who are in urgent financial hardship may however apply for emergency assistance any time during the year. For enquiries, please contact the Office of Student Affairs.





# Faculty of Architecture

**MPhil and PhD Studies at The University of Hong Kong 2003-2004**

The University of Hong Kong started to provide professional education in architecture in 1950. Since then, the teaching of architecture has grown steadily and diversified to include, in 1975, a building programme, which later developed into the current surveying programme. As part of this continuing development, the Faculty of Architecture was established in 1984 from the former School of Architecture to provide professional education in both architecture and surveying.

The Faculty of Architecture now has two departments, Department of Architecture and Department of Real Estate and Construction. It is well equipped with its own studio facilities and laboratories, computer facilities, workshops, photographic and reprographic units as well as a reference bureau.

## **Research in Architecture**

The Department offers professionally oriented degree courses in architecture, urban design, landscape architecture and conservation. A new master's course in interdisciplinary design management (MIDM) is being offered in 2003-04 for the first time.

The Department proposes to focus a major share of its research efforts in the medium term on the three fields of research listed below, with a view to gradually developing international level expertise.

- (A) History and theory of Architecture including conservation studies;
- (B) Information Technology (IT) applications in architectural design and project administration;
- (C) Sustainable building and urban design issues.

There are currently over 30 students registered for higher research degrees in architecture. A brief statement of research interests in about 1,000 words is required from applicants.

In 1999, the Departmental Research Postgraduate Committee (DRPC) was set up in accordance with university wide procedures. From 2000-01, the Department has been offering a compulsory course on research methodology: Seminars for research students (2 units). The Department's Home page contains details of research topics of current students, as well as research interests and publications of potential supervisors and other relevant information.

## **Research in Real Estate and Construction**

The real estate and construction industries have been major components in Hong Kong's economy since the 1970's. With the continuing commitment from the government as well as investment from international consortia in the various infrastructure and development projects, demand for more sophisticated real estate and construction services is rapidly increasing.

Hong Kong is the hub of Southern China as well as a major contributor to economy in the wider East Asian region. With a rich background, a well-established socio-economic framework and a new identity as a Special Administrative Region in a growing Chinese economy, Hong Kong will benefit from interchange of professional experiences.

As the economy develops the real estate and construction industries are becoming increasingly intertwined with other sectors of the economy, particularly in finance sources and in formative technology development. Graduates with backgrounds in other sectors of the economy are finding it increasingly important to equip themselves with value-added knowledge in the real estate and construction field. For this reason, the department offers multi-disciplinary postgraduate programmes with highly innovative teaching methods, providing candidates with the necessary versatility to face new challenges in a changing environment for the new century. In addition, the Department of Real Estate and Construction offers a broad coverage of research opportunities with comprehensive coverage across the land conversion process.

### Major Research Areas

- i) Architectural theory, with particular attention to traditional Chinese vernacular architecture.
- ii) Design of buildings for the community.
- iii) Architectural heritage and conservation of Guangdong, Hong Kong and Macau.
- iv) Computers in design, including collaborative design, computer-aided design, multimedia in design, virtual reality.
- v) Construction and technology, acoustics, energy efficient design, solar energy, fire safety.
- vi) High density urban development.
- vii) History of architecture, particularly the architecture and urban development of coastal cities in China.
- viii) Housing, especially with particular attention to high density and public housing.
- ix) Landscape architecture.
- x) Professional practice, process and management.
- xi) Urban design.

### Postgraduate Admissions Advisor

Professor S. Ganesan Tel: 2859 2145 Fax: 2559 6484 E-mail: [sganesan@arch.hku.hk](mailto:sganesan@arch.hku.hk)

## Department of Real Estate & Construction

### Major Research Areas

Urban Land Economics; Real Estate Investment; Real Estate Finance; Regional Economics; Law and the Real Estate Industry; the Structure of Real Estate and Construction Industries in South East Asia, particularly the People's Republic of China; International Investment Flows in Real Estate and Construction; Construction Economics; Project, Property and Maintenance Management; Safety on Construction Sites; Construction Information Management; Cultural Studies in Real Estate and Construction.

### Departmental Requirement

Presentation of a paper to Faculty staff and research students.

### Postgraduate Admissions Advisor

Dr. Frederik Pretorius Tel: 2859 2146 Fax: 2559 9457 E-mail: [reco@hkucc.hku.hk](mailto:reco@hkucc.hku.hk)

# Faculty of Arts

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Arts was founded in 1912 and is one of the oldest and largest faculties in the University. There are ten departments: Chinese, Comparative Literature, English, Fine Arts, Geography, History, Japanese Studies, Linguistics, Music and Philosophy.

## Postgraduate Studies by Research (MPhil/PhD)

The main areas of study in which departments are able to offer supervision - and the list is a very wide-ranging one - are set out in detail later in this section. In 2002, the Faculty has approximately 300 registered research postgraduate students.

## Department of Chinese

(<http://www.hku.hk/chinese>)

### Major Research Areas

Chinese language	Chinese etymology, Chinese phonology, modern Chinese language.
Chinese literature	Chinese prose, Chinese poetry, Chinese fiction, Chinese xiqu, Chinese literary criticism, modern Chinese literature, contemporary Chinese literature.
Chinese History	Dynastic history of China, social and economic history of China, intellectual history of China, history of Chinese science and technology, history of Chinese legal system, history of Chinese political institutions, history of Chinese examination system, history of Chinese education system, Chinese historiography.
Chinese culture	Chinese culture, civilization, Christianity and Chinese culture, Chinese culture in the twentieth century.
Chinese thought	Confucianism, Daoism, Buddhism, neo-Confucianism.
Translation	Translation theory, translation criticism, linguistics and translation, culture & translation, translation for law, media, fine art and science.

### Departmental Requirement

Students are required to present at a research seminar.

### Postgraduate Admissions Advisor

Dr. K.V.S. Shang Tel: 2859 7923 Fax: 2858 1334 E-mail: [kvsshang@hkucc.hku.hk](mailto:kvsshang@hkucc.hku.hk)

## Department of Comparative Literature

(<http://www.hku.hk/complit>)

### Major Research Areas

#### *Topics in comparative literature and cultural studies*

Anthropology of culture; Architectural theory and criticism; Avantgardes in literature, film, architecture and the visual arts; Baroque literature and poetics; Chinese Modernism; Colonialism and postcolonialism; Comparative poetics; Comparative studies in Chinese/English poetry; Critiques of space; Cultural identity and representation; Dance Theory; Dante; East-West comparative literary/cultural relations; European cinemas; Feminism and psychoanalytic approaches to literature, religion, myth and literature; Feminist cultural studies; Feminist film theory; Feminist and post colonial theories; Film studies and film

language; French philosophy and theory; Gender and sexuality; German philosophy and theory; Hong Kong cinema/culture/literature; Interactive technology; Kafka and expressionism; Literary and cultural theory/philosophy; Literature-Chinese, British, European and American - of all periods; Literature and film/myth/sociology; Metaphysical poetry; Modernism; Multimedia Studies; Narrative theory; New media technologies and aesthetics; Nineteenth-century studies; Opera and cultural studies; Performance studies; Popular culture; Postmodernism; Problems of aesthetics; Psychoanalytic theory; Reception studies; Semiotics; Surrealism; European culture from the early modern period to the present; Technology and the body; Theatre; Theories of representation; Theories of romanticism and postmodernism; Contemporary visual art; Third world cinemas; Violence and Space; Virtual reality and cyberspace; Walter Benjamin; Women's writing/studies.

#### **Departmental Requirement**

Presentation of seminars

#### **Postgraduate Admissions Advisor**

Dr. A.M. Hjort Tel: 2859 7934 Fax: 2857 7955 E-mail: [hjortam@hkucc.hku.hk](mailto:hjortam@hkucc.hku.hk)

## **Department of English**

(<http://www.hku.hk/english>)

#### **Major Research Areas**

##### *English language and linguistics*

English linguistics, English syntax, semantics and pragmatics, discourse analysis, sociolinguistics, world Englishes, English in Hong Kong and Asia, critical linguistics, language and politics, language and the law, the history of linguistics, orientalism and linguistics, and literary linguistics.

##### *Literary studies in English*

Renaissance literature and Shakespeare, romanticism, the English novel, modernism, postmodernism, postcolonial literatures, literary history, colonial discourse analysis, western images/ideas of China, feminist approaches to literature, American literature, modern American fiction, ethnic American literature, Asian-American studies, contemporary British fiction, critical theory, cultural policy, literature and film, travel writing, and creative writing.

#### **Departmental Requirement**

Students are required to present a research seminar.

#### **Postgraduate Admissions Advisor**

Dr. Q.S. Tong Tel: 2859 1923 Fax: 2559 7139 E-mail: [qstong@hkusua.hku.hk](mailto:qstong@hkusua.hku.hk)

## **Department of Fine Arts**

(<http://www.fa.hku.hk/>)

#### **Major Research Areas**

Theory of Chinese art; history of Chinese painting and calligraphy; Japanese ink painting; Japanese medieval art; Japanese garden art; European art of the Renaissance and Baroque periods; 19th and 20th century European and American art history and theory; Hong Kong art; Women's studies and the visual arts; art and colonial/post-colonial culture.

#### **Departmental Requirement**

Presentation of seminar

#### **Postgraduate Admissions Advisor**

Dr. D.J. Clarke Tel: 2859 2613 Fax : 2548 0987 E-mail: [finearts@hkusua.hku.hk](mailto:finearts@hkusua.hku.hk)

### Major Research Areas

#### *Climatology and hazards*

Applied climatology: aspects of urban climate, human bioclimate, tropical climatology, agricultural climatology in the tropics; atmospheric and hydrologic hazards; applications of remote sensing to climatology and hazard management; land use and development in South China.

*Contact Person* Dr. W.J. Kyle Tel: 2859 7022 Fax: 2559 8994 E-mail: [billkyle@hkucc.hku.hk](mailto:billkyle@hkucc.hku.hk)

#### *Environmental science and management*

Environmental modelling (air and water quality, time-series analysis and forecasting) and management (environmental impact assessment, nature conservation in Hong Kong and mainland China); global change research (land-use and land-cover change, greenhouse gases inventory and policy).

*Contact Person* Dr. C.N. Ng Tel: 2859 7025 Fax: 2559 8994 E-mail: [cnng@hkucc.hku.hk](mailto:cnng@hkucc.hku.hk)

#### *Geographical Information Systems and cartography*

Geographic Information Systems (principles and applications, resource management, critical area analysis); computer and analytical cartography; cartographic and digital map production; spatial analysis; quantitative methods; transport geography; tactile mapping.

*Contact Person* Dr. P.C. Lai Tel: 2859 2830 Fax: 2559 8994 E-mail: [pclai@hkucc.hku.hk](mailto:pclai@hkucc.hku.hk)

#### *Geomorphology and quaternary science*

Geomorphology; environmental science and natural hazards; hydrology and hydrochemistry; quaternary science; physical environmental studies in Tibet, south and north China.

*Contact Person* Dr. D. Zhang Tel: 2859 7027 Fax: 2559 8994 E-mail: [zhangd@hkucc.hku.hk](mailto:zhangd@hkucc.hku.hk)

#### *Hydrology and sediment studies*

Hydrology; applied hydrology; flood; drought; water quality (including the acidity of water in the hydrologic cycle); sediment production and transport in the fluvial system.

*Contact Person* Dr. M.R. Peart Tel: 2859 7021 Fax: 2559 8994 E-mail: [mrpeart@hkucc.hku.hk](mailto:mrpeart@hkucc.hku.hk)

#### *Urbanization, China's cities and small industry*

Small industry; urban informal sector, urbanization and urban processes; comparative urban studies in Asian Pacific region; industrial geography; Chinese cities; China's economy.

*Contact Person* Professor V.F.S. Sit Tel: 2859 2839 Fax: 2559 8994 E-mail: [hragvis@hkucc.hku.hk](mailto:hragvis@hkucc.hku.hk)

#### *Soil science and biogeography*

Soil science (soil structure, micromorphology, human impacts, urban soils); biogeography (urban ecology, urban vegetation, arboriculture, landscape and amenity planting, afforestation, revegetation of disturbed lands, recreational impacts, countryside conservation).

*Contact Person* Professor C.Y. Jim Tel: 2859 2835 Fax: 2559 8994 E-mail: [hragjcy@hkucc.hku.hk](mailto:hragjcy@hkucc.hku.hk)

#### *Tourism and recreation geography*

Tourism and recreation geography; globalization of consumption and production; culture and recreation; China and Asia-Pacific tourism development; visitor management and tour guiding/operation, leisure and perceptions of time, space and place.

*Contact Person* Dr. Y.P. Li Tel: 2859 2837 Fax: 2559 8994 E-mail: [liyiping@hkucc.hku.hk](mailto:liyiping@hkucc.hku.hk)



*Transport, economic and regional development*

Transport (infrastructural development and geography, investment, developmental role of transport); economic and regional development (globalization, geography of information technology, development studies, regional development strategies and regional disparity); China studies (central-local relations, statistical system, transport geography and development policies).

*Contact Person* Dr. B.P.Y. Loo Tel: 2859 7024 Fax: 2559 8994 E-mail: [bpyloo@hkucc.hku.hk](mailto:bpyloo@hkucc.hku.hk)

*Transportation geography and container port systems*

Transportation geography, travel behaviour modelling; time budget/use studies; urban public transport in Hong Kong and China; container port systems.

*Contact Person* Dr. J.J. Wang Tel: 2859 7026 Fax: 2559 8994 E-mail: [jwang@hkusua.hku.hk](mailto:jwang@hkusua.hku.hk)

*Urban and regional development in China, and economic geography*

Urban and regional development in China/and property rights in China; transnationalism and Chinese diaspora; social geography of Hong Kong; public policy and regional development; economic geography; Hong Kong-Guangdong integration.

*Contact Person* Dr. G.C.S. Lin Tel: 2859 7023 Fax: 2559 8994 E-mail: [gcslin@hkucc.hku.hk](mailto:gcslin@hkucc.hku.hk)

*Urban and social geography, and environmentalism*

Urban and social geography (urbanization, urban planning, urban environment, urban housing, urban land-use); environmentalism (environmental perception, society-environment relations, environmental movements; corporate environmentalism); cross-boundary environmental issues in the Pearl River Delta.

*Contact Person* Dr. Y.S.F. Lee Tel: 2859 2840 Fax: 2559 8994 E-mail: [leey@hkucc.hku.hk](mailto:leey@hkucc.hku.hk)

*WTO and economic development in China*

Urban studies; regional planning; geography of finance and trade; WTO and economic development in China.

*Contact Person* Dr. S.X.B. Zhao Tel: 2859 2838 Fax: 2559 8994 E-mail: [sxzhao@hkucc.hku.hk](mailto:sxzhao@hkucc.hku.hk)

**Departmental Requirements**

Attendance and presentation of seminars are mandatory for MPhil and PhD students.

**Postgraduate Admissions Advisor**

Dr. G.C.S. Lin Tel: 2859 7023 Fax: 2559 8994 E-mail: [gcslin@hkucc.hku.hk](mailto:gcslin@hkucc.hku.hk)

**Department of History**

(<http://hkuhist2.hku.hk/history>)

**Major Research Areas**

Modern Chinese History - politics, society, economic, foreign relations, urban development, urban planning and environment of China; business history of China, Hong Kong and Southeast Asia; urban history of China, Japan, and Europe; history of disease, public health, medicine and science of China; modern Japanese history; Southeast Asian history; diplomatic history; early modern and modern European history; Russian history and labour movements; United States history; early modern English history, modern British history.

**Departmental Requirement**

Students are required to present a research seminar.

**Postgraduate Admission Advisor**

Professor N.G. Owen Tel: 2859 2864 Fax: 2858 9755 E-mail: [history@hkucc.hku.hk](mailto:history@hkucc.hku.hk)

## Department of Japanese Studies

(<http://www.hku.hk/japanese>)

### Research Areas

Ainu studies, minorities in Japan; Anthropology and contemporary Japanese society; Applied and comparative linguistics; Art and aesthetics; Comparative studies of modern Chinese and Japanese literatures; Diplomatic and political history; Education and gender studies; Hong Kong-Japanese relations; Japanese business in Hong Kong; Japanese intellectual history; Literature; Popular culture; Sino-Japanese studies.

### Postgraduate Admissions Advisor

Professor. K. Refsing Tel: 2859 2879/2859 8046 Fax: 2548 7399 E-mail: [refsing@hkucc.hku.hk](mailto:refsing@hkucc.hku.hk)

## Department of Linguistics

(<http://www.hku.hk/linguist>)

### Major Research Areas

Phonetics, phonology, morphology, syntax, Lexical Functional Grammar, semantics, lexicology and lexicography, pragmatics, sociolinguistics, conversation analysis, language and literacy, computational linguistics, corpus linguistics, language typology, dialectology, comparative grammar, Chinese and English contrastive grammar, linguistic analysis of Chinese, Cantonese, African, European and South East Asian languages.

### Postgraduate Admissions Advisor

Dr. A.B. Bodomo Tel: 2857 8285 Fax: 2546 4943 E-mail: [abbodomo@hkusua.hku.hk](mailto:abbodomo@hkusua.hku.hk)

## Department of Music

(<http://www.hku.hk/music/>)

### Major Research Areas

#### *Musicology*

Historical, theoretical, and anthropological approaches to music research; the classical, traditional, and popular idioms of various regions of the world; special areas of focus are China, including Hong Kong; other Asian cultures, in particular the Philippines; and Western cultures, in particular France, Germany, Italy and Low Countries, and North America; faculty's theoretical and methodological interests include manuscript and source studies, performance practice, aesthetics, ethnography, and the social and cultural contexts of music.

#### *Composition*

Guidance in musical composition using a great variety of media, including voice, musical instruments of Western and Asian cultures, other acoustic and electro-acoustic instruments; specialization in computer-assisted musical creativity; students are encouraged to explore various musical styles and idioms, including popular and commercial musics.

### Departmental Requirements

Attendance and presentation of papers at two postgraduate seminars and postgraduate reading courses. Attendance of Departmental Research Colloquia.

### Postgraduate Admissions Advisor

Dr. Karl Kuegle Tel: 2241 5209 Fax: 2858 4933 E-mail: [kuegle@hkucc.hku.hk](mailto:kuegle@hkucc.hku.hk)

## Department of Philosophy

(<http://www.hku.hk/philodep/>)

### Research Areas

Action and the Will; Aristotle; Chinese philosophy; Chinese theory of language; Chinese theory of mind; Classical Confucianism; Comparative philosophy; Computer-assisted learning; Cognitive science; Daoism; Democratic theory; Descartes; Epistemology and philosophy of language; Ethics; History of early modern philosophy; History and philosophy of science; Hume; Interpretation in the social sciences; Liberal-communitarian debate; Logic; Marxist philosophy; Meta-ethics; Nietzsche; Paradoxes; Personal identity; Philosophy and medicine; Philosophy of human rights; Philosophy of language; Philosophy of law; Philosophy of literature; Philosophy of logic and language; Philosophy of mathematics; Philosophy of mind and cognitive science; Philosophy of religion; Philosophy of science; Phenomenology; Plato; Political philosophy; Pragmatism; Ritual and symbolism; Rousseau; Theories of Justice; Wittgenstein.

### Postgraduate Admissions Advisor

Dr. J. Ci    Tel: 2859 2796    Fax: 2559 8452    E-mail: [jiweici@hkucc.hku.hk](mailto:jiweici@hkucc.hku.hk)



# Faculty of Business & Economics

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Business and Economics was established in January 2001, embracing the School of Business and the School of Economics and Finance. Being the 10th faculty of the University, the new Faculty signifies the University's effort in the education of Business and Economics. Both Schools in the Faculty offer research programmes leading to the degrees of MPhil and PhD. In addition, the Faculty offers a variety of taught master programmes, including Master of Business Administration, Master of Business Administration (International), Master of Finance and Master of Economics. All of these programmes are designed to provide students with a deep understanding of the key aspects of the field of business and economics, yet at the same time impart a far-reaching vision that enables them to view Asia from not just a regional but a world-wide perspective.

The Faculty also places great emphasis on network building and extends linkages with key business communities in Asia through its consulting and executive teaching projects and through its alumni.

## The School of Business

(<http://www.business.hku.hk>)

### Major Research Areas

#### *Asian/Chinese business organization and management practice*

China is a "transitional" economy, whose distinctive characteristics and rapid development offer unprecedented intellectual challenges to academia. We look at how firms in China evolve and are managed as the country transforms into a market economy in the context of our globalizing business world. Examples of our major research topics are the alignment of firm resources to changing environments, organizational learning, competence development and human resource strategies, and organizational behaviours of employees in China.

**Contact Person** Dr. Simon Lam Tel: 2859 1008 Fax: 2858 5614 E-mail: [simonlam@business.hku.hk](mailto:simonlam@business.hku.hk)

#### *Accounting and finance*

Accounting - Using empirical and analytical tools, the area of accounting research emphasizes on issues related to the production and use of accounting information. Statistical and mathematical methods are essential for conducting the research. Selected research topics include: the relationship between financial information and stock prices, how are forecast information produced by security analysts and used by investors, voluntary disclosure and earnings management behaviour of corporate managers, issues related to financial accounting standards setting, and issues related to external auditors' decision-making. Selected topics in the area of management accounting are also encouraged.

**Contact Person** Dr. Derek Chan Tel: 2857 8357 Fax: 2858 5614 E-mail: [derekchan@business.hku.hk](mailto:derekchan@business.hku.hk)

Finance - Empirical and theoretical research in all areas of finance including corporate finance, asset pricing theories, portfolio analysis, financial institutions, fixed-income securities, derivative securities, exotic options, international finance, risk management, capital market microstructure, Asian financial markets, and econometric applications in finance. Our research programme also draws special interactions and synergy with two financial research centres of the Faculty, namely, Centre for Financial Innovation and Risk Management and Centre for China Financial Research.

**Contact Person** Professor Eric Chang Tel: 2241 5138 Fax: 2858 5614 E-mail: [ecchang@business.hku.hk](mailto:ecchang@business.hku.hk)

#### *Corporate strategy and business environment*

Economics of human resources; Application of economic analysis to public policy; Housing and property markets; the rise of producer services; Political economy of laissez faire in Hong Kong; International trade and investment; International business; Economics of organization, management and strategy; Organization and strategy in Chinese economy; Business economics;

Competitiveness of Chinese economy; Regional clustering and development; International competitiveness; International competition and strategy; Strategy and its execution; Business processes and information; Multinational enterprises in the Asian Pacific economies.

**Contact Person** Dr. Tao Zhigang Tel: 2857 8223 Fax: 2858 5614 E-mail: [ztao@business.hku.hk](mailto:ztao@business.hku.hk)

### ***Marketing in the Chinese economy***

The research area of "Marketing in the Chinese Economy" consists of three research programmes:

"High Performance Firms in China"- Optimal level of staff localization; Changing institutional environment & strategic alignment of firm resources; Organizational and HR strategies in firms in China; Organizational learning and development of core competencies.

"Global Firm Operations & Globalization of Chinese Firms"- FDI flows and their impacts on home country factors; Diversification and strategies of global brands in China; Globalization of Chinese firms; Branding strategies: how local Chinese brands compete foreign brands.

"Sociology of Consumption"- Index of consumer sentiment: socio-institutional framework; Consumer aspirations: income effects and escalating demands on durable products; Organizational buying behaviour and strategies; Consumption strategies: how Chinese consumer afford lifestyles beyond their means.

**Contact Person** Professor David Tse Tel: 2859 1010 Fax: 2858 5614 E-mail: [davidtse@business.hku.hk](mailto:davidtse@business.hku.hk)

### ***MIS***

Electronic commerce; Electronic commerce impact on procurement; Electronic catalogs; Enterprise resource planning; Global electronic commerce; Groupware and workflow management; Hypermedia and web design; Information system evaluation; Information systems/technology adoption and implementation; Information presentation and model visualization; IT-based supply chain management; Internet navigation and information retrieval; Management of technology and innovation; System development methodologies.

**Contact Person** Dr. Patrick Chau Tel: 2859 1025 Fax: 2858 5614 E-mail: [pchau@business.hku.hk](mailto:pchau@business.hku.hk)

### **School Requirement**

GMAT or GRE score obtained within four years. (The GMAT and GRE code of the University is 788 and 2482 respectively.)

### **Postgraduate Admissions Advisor**

Professor Eric C. Chang Tel: 2241 5138 Fax: 2858 5614 E-mail: [ecchang@business.hku.hk](mailto:ecchang@business.hku.hk)

## **The School of Economics and Finance**

(<http://www.econ.hku.hk>)

### **Major Research Areas**

Chinese economy; Econometrics; Economic development; Financial economics; Game theory; Industrial organisation; International trade and finance; Labour economics; Macroeconomics; Monetary theory and banking; Mathematical economics; New institutional economics; Political economy; Price theory; Public finance; Transportation economics; Urban economics.

### **School Requirements**

MPhil/PhD students may be required to take a qualifying examination before their candidature is confirmed. Students are also required to present a research seminar.

### **Postgraduate Admissions Advisor**

Dr. C. Bai Tel: 2859 1036 Fax: 2548 1152 E-mail: [baic@econ.hku.hk](mailto:baic@econ.hku.hk)

# Faculty of Dentistry

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Dentistry is one of the younger Faculties of the University established in 1980. Since then the Faculty has served with distinction in all areas of teaching, research, patient care and services to the University, the profession and the community. Recently, it has launched a number of collaborative ventures with pre-eminent dental schools in China through joint research activities, training of research students and, the organization of joint conferences and academic meetings.

A key research goal of the Faculty is to strengthen its position as a premier center for dental research in Southeast Asia. Indeed, the Faculty is now recognized as the leading regional research center in oral and maxillofacial diseases and bone biology as well as clinical oral microbiology and, biomaterials. To further this end the Faculty is actively expanding programmes leading to the degrees of Master of Philosophy (MPhil) and Doctor of Philosophy (PhD).

In general, the research in the Faculty operates under the preview of four research groups, as follows:

1) Dental Materials and Technology Transfer

The Dental Materials Science Laboratory has continued to push the boundaries of knowledge in the area. The current programme includes:

- Design of artificial saliva
- Chemical equilibria of multiple systems of electrolytes
- Droplet shape
- Development of a mechanical testing machine for use in the field particularly in primate nutrition studies
- Turbine handpiece instrumentation

2) Hard Tissue Biology and Repair

The hard tissue research group is involved in different aspects of research in the field of bone induction. Members of the team are carrying out molecular, biochemical as well as clinical research that deals with identifying the mechanisms of bone formation and the use of growth factors, angiogenic mediators and bone matrices in bone induction. Other aspects of research deal with:

- Identifying growth factors regulating jaw growth
- Dentine regeneration using non-collagenous proteins and chondrogenic inducing factors

3) Oral Health Care Delivery

The research activity of this group is centred on the following main themes:

- Oral epidemiology: To collect information on the status of oral health and disease in population groups where such information is lacking and is of current international interest.
- Psycho-social aspects of oral health care: To study the perceived oral health related quality of life of individuals and satisfaction with dental care and utilization of various services.
- Clinical studies: To examine the various outcome parameters resulting from the use of various treatment modalities and materials.

4) Soft Tissue and Infection

Although much information is available from the West on oral infections, little is known of their prevalence and aetiopathogenesis in Asian populations. Hence the work of this group is focused on:

- Oral microbiology of compromised individuals including the HIV-infected, diabetics, the irradiated and renal transplant patients.
- Basic and applied research on microbiological profiles and the host-parasite interactions in patients with periodontal diseases.
- Development of appropriate therapeutic modalities in controlling periodontal diseases in Asian populations.
- Molecular pathogenesis of oral Candida infections.

(Faculty homepage: <http://www.hku.hk/dental/english/index.html>)

## Major Research Areas

### *Endodontics/conservative dentistry*

Efficacy of root canal preparation techniques, mechanical properties and fatigue characteristics of root canal instruments, treatment outcomes of various form of endodontic therapy, materials for endodontic treatment, clinical and laboratory studies of restorative materials.

**Contact Person** Dr. G.S.P. Cheung Tel: 2859 0288 Fax: 2559 9013 E-mail: [spcheung@hkusua.hku.hk](mailto:spcheung@hkusua.hku.hk)

### *Dental materials science*

Design and interpretation of test methods in materials science; saliva chemistry; chemical equilibrium and solution speciation computation; mechanical properties of materials; dental procedures, equipment and materials: chemistry, physics, mechanics.

**Contact Person** Professor B.W. Darvell Tel: 2859 0303 Fax: 2548 9464 E-mail: [hrdubwd@hkucc.hku.hk](mailto:hrdubwd@hkucc.hku.hk)

### *Dental public health*

Epidemiological, health services and behavioural research of oral health status and its determinants.

**Contact Person** Dr. E.C.M. Lo Tel: 2859 0292 Fax: 2858 7874 E-mail: [hrdplcm@hkucc.hku.hk](mailto:hrdplcm@hkucc.hku.hk)

### *Oral and maxillofacial surgery*

Cleft lip and palate; oral malignancy; benign tumours; facial deformity; reconstructive surgery; temporomandibular joint pathology; endosseous implantology; cell cultured mucosa; distraction osteogenesis.

**Contact Person** Dr. N. Samman Tel: 2859 0268 Fax: 2559 9014 E-mail: [nsamman@hkucc.hku.hk](mailto:nsamman@hkucc.hku.hk)

### *Oral bio-sciences*

Oral microbiology; oral pathology; cariology; oral candidal infections; HIV disease; biofilm formation and artificial mouth.

**Contact Person** Professor L.P. Samaranayake Tel: 2859 0480 Fax: 2547 6133 E-mail: [lakshman@hkucc.hku.hk](mailto:lakshman@hkucc.hku.hk)

### *Oral rehabilitation*

Implantology; polymethylmethacrylate denture base resin; fibre-reinforced dental polymers; dental handpiece performance; maxillofacial reconstruction; denture retention; dental magnets; motor control of the human jaw muscles; pathogenesis and management of temporomandibular disorders; quality of life measures in geriatric dentistry; resin-bonded bridges; patient-based assessment of fixed and removable prosthodontic treatment; glass ionomer cements.

**Contact Person** Dr. T.W. Chow Tel: 2859 0313 Fax: 2858 6114 E-mail: [twchow@hku.hk](mailto:twchow@hku.hk)

### *Orthodontics*

Experimental studies of bone generation; growth modifications and understanding growth factors regulating jaw growth; epidemiological studies of orofacial form; clinical and experimental evaluation of orthodontic treatment approaches.

**Contact Person** Professor E.U.O. Hagg Tel: 2859 0249 Fax: 2559 3803 E-mail: [euohagg@hkusua.hku.hk](mailto:euohagg@hkusua.hku.hk)

## *Paediatric dentistry*

Epidemiological studies of early childhood caries, dental anomalies and developmental defects; cleft lip and palate; clinical studies of dental materials; laboratory and clinical studies on remineralization of enamel and bonding agents.

*Contact Person* Professor N.M. King Tel: 2859 0253 Fax: 2559 3803 E-mail: [kingnm@glink.net.hk](mailto:kingnm@glink.net.hk)

## *Periodontology*

Epidemiological, behavioural and clinical research of periodontal diseases, their prevention and management; basic research of periodontal microflora and host response in the local population.

*Contact Person* Dr. E.F. Corbet Tel: 2859 0301 Fax: 2858 7874 E-mail: [efcorbet@hkusua.hku.hk](mailto:efcorbet@hkusua.hku.hk)

## **Postgraduate Admissions Advisor**

Professor L.P. Samaranayake Tel: 2859 0480 Fax: 2547 6133 E-mail: [lakshman@hkucc.hku.hk](mailto:lakshman@hkucc.hku.hk)



# Faculty of Education

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Education was established in 1984 and has recently re-organized itself into a unitary structure by merging the Department of Curriculum and Educational Studies and the Department of Speech and Hearing Sciences. The Physical Education and Sports Science Unit has left the Faculty to join the newly-formed Institute of Human Performance. However the Unit's degree courses will still be offered through the Faculty. The Faculty has assumed an important role in educational research and professional training in the region and internationally, and has contributed significantly to education policy and development in Hong Kong. It is a major teacher education institution, has strong expertise in policy analysis and curriculum development, and is the only institution in Hong Kong training speech therapists and audiologists for the local community.

There are about 90 full-time academic members of staff coming from various parts of the world. In addition to performing teaching duties, academic staff are engaged in an extensive range of research which provides a focus for supervision of research degrees. Major areas of focus in particular include comparative education, curriculum development and evaluation, education in China, language education, education psychology and special education, policy studies and leadership, speech and hearing sciences, educational technology and instructional media, and mathematics and science education. Members of the Faculty lead both international and local projects and play roles on Editorial Boards for local and international journals. Many of them also sit on different advisory committees contributing to the formulation of policies related to education in Hong Kong.

In addition to undergraduate programmes and taught postgraduate programmes, the Faculty offers supervision of research leading to the award of MPhil and PhD degrees. The Faculty puts much emphasis on the quality of research postgraduate education with quality-assurance systems and policies operating in the admission process as well as during the period of candidature. For each applicant, an Advisory Panel is appointed to evaluate and make a recommendation concerning admission. For admitted candidates, the Advisory Panel remains in place for the length of candidature, advising on confirmation, academic performance, transfers, and issues of progress, including the evaluation of study plans where these are required. To promote collegiality among research students and encourage exchange of ideas among students and staff in enhancing research activities in the Faculty, a postgraduate research conference is organized annually. This conference attracts over 100 participants each year. In addition, to enhance communication with students, a Research Students Consultation Meeting has been set up since May 2002 and holds meetings on a monthly basis.

In order to provide a focus for research, the Faculty has recently established an Office of Research to deal with all matters relating to research postgraduate studies and research projects. In addition, a number of research centres have been established in the Faculty. The Comparative Education Research Centre, formed in 1994, promotes research in the field of comparative education. The Teachers of English Language Education Centre (TELEC), established in 1993, operates a computer interface between the University and secondary/primary schools in Hong Kong. The Hong Kong Putonghua Education and Assessment Centre was established in 1996 as the first of such centres in Hong Kong to provide training and assessment of Putonghua to teachers in the community. The Centre for Educational Leadership provides a focal point for academics engaging in research in educational leadership. The Centre for Information Technology in (School and Teacher) Education was established in 1998 to promote research on and development of IT in education and to offer continuing professional development opportunities in this area, including the establishment of a Master of Science in Information and Technology Education programme. The Wah Ching Centre of Research on Education in China was established in 1998. Team members apply their international expertise to the study of education in China and abroad.

(Faculty homepage: <http://www.hku.hk/faced/>)

## Division of Educational Psychology, Special Education and Guidance

### Major Research Areas

Quantitative and qualitative research design; Single case study; Statistical modeling of educational data; Test theories.

## *Educational psychology*

Child and adolescent development; Educational psychology; Developmental psychology; Pre-school, primary, secondary, and higher education school psychology; Educational assessment and measurement; Test theories; Single case study; Statistical modeling of educational data; Quantitative and qualitative research design; Psychology of teaching and learning; Cognition and instruction; Knowledge building; Higher-order thinking; Giftedness; Intellectual styles, personality and student learning; Experiential learning; Computer-supported collaborative learning; Conceptual change; Reading processes; Student development; Teacher-pupil interaction; Applied behavior analysis; Classroom management; Social psychology of education; Cross-cultural psychology; Self-concept/self-esteem; Stress management; Gender identity development and transgender; Educational psychology program design and evaluation.

## *Special education*

Special education needs; Children with learning difficulties; Sensory, physical, mental, and social-emotional disabilities; Learning and behavioral difficulties; Developmental and multiple disabilities; Early childhood, primary, secondary, and post-secondary special education; Curriculum modification and adaptation; Remedial teaching; Literacy and numeracy; Personnel preparation; Comparative special education; Cultural and linguistic diversity; Immigrant learners; Inclusive education; Assistive technology; Parent involvement; Home-school partnership; Transdisciplinary teamwork; Special education program design and evaluation; Gifted children with learning disabilities; Gifted and disadvantaged children; Role of orthographic awareness in language acquisition among dyslexic children.

## *Guidance and counseling*

General guidance and counseling; School guidance and counseling; Counseling and personal-social education; Affective education; Teacher stress; Student adjustment; Gender and transgender studies; Special needs; Inclusive education; Students' and teachers' perception; Human helping relationship; Group guidance; Career counseling; Life skills development; Counseling and education of gifted children; Leadership and affective development for the gifted; Adventure based counseling; Peer counseling; Teacher self development; Teacher self-efficacy; Counseling efficacy; Guidance personnel supervision and education; School consultation; Parent education; Cross-cultural studies in guidance and counseling; Counseling program design and evaluation.

## Division of Information and Technology Studies

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### **Major Research Areas**

Socio-cultural issues regarding technological practice and change; Information technology implementation in schools; Use of information technology across curriculum; Planning and managing information technology in schools; Information technology and educational leadership; Computer supported collaborative learning; Information technology support for school administration; Library and information services in education; Knowledge management in education.

## Division of Language & Literature

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### **Major Research Areas**

#### *Chinese language education*

Chinese language and literature education; Language curriculum development and evaluation; General Chinese linguistics; Psycholinguistics-Chinese; Chinese sociolinguistics; Language testing, measurement and evaluation of Chinese; Cognitive aspects of Chinese language learning; Linguistic aspects of Chinese language education; Computers in Chinese language teaching and learning; Application of functional linguistics to teaching Chinese.

#### *English language education*

English language education (TESL, TEFL); The English curriculum; Classroom interaction and classroom language; Second language acquisition; Grammar and pedagogy; Spoken and written discourse; Classroom discourse analysis; The sound and meaning system; Text linguistics and composition theories; Language assessment; Language policy; Medium of instruction; Genre analysis; Teacher language awareness.

## Division of Policy, Administration and Social Sciences Education

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### Major Research Areas

Curriculum and assessment; Curriculum implementation and evaluation studies; Business studies; Curriculum innovation and development; Economics education; Economics of education; Education and national development; Educational administration and school organisation; Educational change and leadership; Educational philosophy; Educational planning and policy analysis; Environmental education; Ethnic minority education; Geographical education; History education; Social sciences education; Sociology of education; Teacher thinking, beliefs and knowledge; The education and professional development of teachers from initial through inservice stages; Values education; Women and education. Key members of the Comparative Education Research Centre (CERC), the Wah Ching Centre of Research on Education in China (CREC) and the Centre of Education Leadership (CEL) are located within the Division.

## Division of Science, Mathematics and Computing

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### Major Research Areas

Science education; Environmental education; Physics education; Chemistry education; Biology education; Mathematics education; Statistics education; Computer education; Health education; Substance abuse preventive education; Studies of student thinking, learning and achievement in different school subjects; Classroom processes - strategies of teaching and learning; Use of information technology in teaching and learning; Curriculum innovation and development; Curriculum implementation and evaluation studies; Evaluation of health education interventions; Use of ICT for resources development in teaching & learning; Evaluation of mentoring provision in schools; Integrated curriculum development in science, health and humanities; Comparative studies; Teacher education; Teacher thinking, beliefs and knowledge.

## Division of Speech and Hearing Sciences

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### Major Research Areas

#### *Speech and language studies*

Children's speech and language development in Cantonese and Putonghua; Communication impairment in the ageing population; Comprehension in Cantonese aphasics; Cross-linguistic comparisons of normal and non-normal language development; Efficacy of voice therapy; Instrumental voice evaluation; Normal speech, language in Chinese speaking populations; Acquired reading disorders in Chinese Bilingual language development; Speech and language disorders of Cantonese-speaking hearing impaired children; Speech and language impairment in Cantonese-speaking children and adults; Speech disorders associated with cleft palate and dysarthria.

#### *Hearing science*

Acoustic analysis of speech and speech perception; Perceptual segregation of simultaneous sounds.

#### *Clinical audiology*

Application and performance of hearing aids in the Hong Kong environment; Development of hearing assessment tools; Neonatal and Infant hearing screening; Childhood hearing loss in developing countries.

## Faculty Requirements

- (i) PhD applicants are required to submit a 4-page Research Proposal Summary, in addition to a detailed Research Proposal; while MPhil applicants are required to submit a 4-page Research Proposal Summary. (The pro-forma is available at the Office of Research, Faculty of Education.)
- (ii) Presentation of a seminar for confirmation of candidature.

## Postgraduate Admissions Advisors

For all Divisions except Division of Speech and Hearing Sciences

Professor C.W. Evers, Associate Dean (Research) Tel: 2859 1901 Fax: 2547 1924 E-mail: [cwevers@hkucc.hku.hk](mailto:cwevers@hkucc.hku.hk)

Professor D.A. Watkins Tel: 2859 1904 Fax: 2858 5649 E-mail: [hrfewda@hkucc.hku.hk](mailto:hrfewda@hkucc.hku.hk)

For Division of Speech and Hearing Sciences

Professor P. J. Fletcher Tel: 2859 0595 Fax: 2559 0060 E-mail: [fletcher@hkusua.hku.hk](mailto:fletcher@hkusua.hku.hk)



# Faculty of Engineering

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Engineering is as old as The University of Hong Kong, being one of the two founding faculties that were set up when the University was first established in 1912. The Faculty is made up of five core departments: Civil Engineering, Computer Science and Information Systems, Electrical and Electronic Engineering, Industrial and Manufacturing Systems Engineering, and Mechanical Engineering.

The Department of Civil Engineering is one of the oldest departments in the University. Its postgraduate studies are offered either as predominantly research degrees, leading to the degrees of Master of Philosophy (MPhil) and Doctor of Philosophy (PhD) or primarily by coursework, leading to the degree of Master of Science (MSc) in Engineering. In addition, the Department offers professional training courses for civil engineering graduates suitable for Continuing Professional Development for the purpose of obtaining corporate membership of the Hong Kong Institution of Engineers.

The Department of Computer Science and Information Systems, formerly known as Computer Studies in the Faculty of Science, was established in the Faculty of Engineering on July 1, 1988. The Department is active in both the basic research of computer science and the development computer technology that benefits Hong Kong and the Region. The Department offers programmes leading to research MPhil and PhD degrees in Computer Science and Information Systems, as well as a coursework degree of MSc in Computer Science, and MSc in Electronic Commerce and Internet Computing offered in conjunction with the Department of Electrical and Electronic Engineering.

The Department of Electrical and Electronic Engineering was established within the Faculty of Engineering in The University of Hong Kong in 1961 and assumed its current name in 1986. In addition to research degrees of Master of Philosophy (MPhil) and Doctor of Philosophy (PhD) in various areas of forefront technologies in the EEE discipline, the Department also offers coursework degrees of MSc (Eng) in Electrical and Electronic Engineering, in Computer and Information Technology, and in Communication Engineering, covering the theories and practices of advanced topics such as biomedical engineering, computer systems, multi-media systems, networking, power systems, signal processing and wireless communications. The Department also jointly offers the MSc (Eng) degree in Building Services Engineering with other Engineering Departments in the Faculty.

The Department of Industrial and Manufacturing Systems Engineering offers research degrees programmes leading to Master of Philosophy (MPhil) and Doctor of Philosophy (PhD). Active areas of research in the Department include: CIM, CAPP, Feature-based Design, Flexible Manufacturing Systems, Robotic Systems, Inventory Control, Quality Management, Design of Experiments, Statistical Process Control, Supply Chain Management, Operations Research, Metal Cutting, Plastics Technology, etc. The Department also offers a part-time MSc(Eng) programme in Industrial Engineering and Industrial Management to provide training for practising engineers and managers.

The Department of Mechanical Engineering was established in 1958 and official recognition of the Mechanical Engineering Degree was granted by the Institution of Mechanical Engineers in the U.K. in 1963. At the postgraduate level, the Department offers research programmes leading to MPhil and PhD degrees as well as coursework postgraduate programme leading to the MSc(Eng) degrees in Mechanical Engineering and Building Services Engineering.

## Department of Civil Engineering

(<http://www.hku.hk/civil/>)

### Major Research Areas

#### *Construction engineering and management*

Construction procurement system selection, contractor selection, design-construct, BOT and other public-private partnerships, claims & dispute management, construction durations, time extensions, risk management, quality management, benchmarking, industry development, technology transfers, information technology, whole life cycle management of infrastructure.

## *Geotechnical engineering*

Soil and rock mechanics, uncertainties and risk; in-situ and laboratory testing; marine clay; pile foundations; slope stability and landslip prevention; pavements.

## *Structural engineering*

Computational mechanics; finite element and finite strip analysis; earthquake engineering; tall buildings; bridge engineering; reinforced concrete structures; concrete materials; soil-structure interaction; computer-aided design/analysis.

## *Traffic and transportation engineering*

Transport demand modelling; continuum modelling in transport; theory of traffic flow; traffic management and control; traffic signals; network equilibrium problems; dynamic network modelling; transportation systems engineering.

## *Water and environmental engineering*

Hydrology; environmental hydraulics/fluid mechanics; wind engineering; water quality modelling; advanced water and wastewater treatment; solid and hazardous waste management; coagulation and sedimentation dynamics.

## **Departmental Requirements**

At least one seminar presentation before confirmation of candidature; publication of papers is strongly encouraged.

## **Postgraduate Admissions Advisor**

Dr. L.G. Tham Tel: 2859 1965 Fax: 2559 5337 E-mail: [hrectlg@hkucc.hku.hk](mailto:hrectlg@hkucc.hku.hk)

## **Department of Computer Science and Information Systems**

(<http://www.csis.hku.hk/>)

## **Major Research Areas**

### *Computer systems*

Distributed and parallel computing; networks; cluster and grid computing; operating systems; computer architecture; WWW and Internet.

*Contact Person* Dr. F.C.M. Lau Tel: 2859 2170 Fax: 2559 8447 E-mail: [fcmlau@csis.hku.hk](mailto:fcmlau@csis.hku.hk)

### *Data engineering*

Data mining; data warehousing; spatial database; real-time database; Internet resource discovery; semi-structured data and XML technology.

*Contact Person* Dr. D.W.L. Cheung Tel: 2859 7072 Fax: 2559 8447 E-mail: [dcheung@csis.hku.hk](mailto:dcheung@csis.hku.hk)

### *Human-computer interface*

Computer graphics; computer vision; multimedia; speech recognition; pattern recognition; image processing; scientific computing; geometric computing.

*Contact Person* Dr. W. Wang Tel: 2859 7074 Fax: 2559 8447 E-mail: [wenping@csis.hku.hk](mailto:wenping@csis.hku.hk)

### *Information systems*

Information security; cryptographic systems; legal aspects of computing; E-commerce.

*Contact Person* Dr. L.C.K. Hui Tel: 2859 2190 Fax: 2559 8447 E-mail: [hui@csis.hku.hk](mailto:hui@csis.hku.hk)

*Software engineering*

Software engineering; software testing & verification.

Contact Person Dr. T.H. Tse Tel: 2859 2183 Fax: 2559 8447 E-mail: [tse@csis.hku.hk](mailto:tse@csis.hku.hk)

*Theory of computation*

Design and analysis of algorithms; computational geometry; computational biology.

Contact Person Dr. T.W. Lam Tel: 2859 2172 Fax: 2559 8447 E-mail: [twlam@csis.hku.hk](mailto:twlam@csis.hku.hk)

**Departmental Requirements**

PhD candidate is required to submit a progress report and to give one/two oral presentation(s) during each year of studies after the probationary period. At least one seminar presentation before submission of thesis; publication of papers is strongly encouraged.

**Postgraduate Admissions Advisor**

Dr. W. Wang Tel: 2859 7074 Fax: 2559 8447 E-mail: [wenping@csis.hku.hk](mailto:wenping@csis.hku.hk)

**Department of Electrical and Electronic Engineering**

(<http://www.eee.hku.hk/>)

**Research Areas**

*Biomedical engineering*

EEG signal analysis; Medical image processing; Biomedical signals analysis using adaptive filtering, wavelet, time-frequency and artificial neural net methods.

*Computer systems and networking*

Internet technologies and applications; Protocols for Quality of Service support; Multicasting; Network security; Wireless networks; Scheduling in broadband wireless networks; Wireless LAN security; Ad hoc networks; Routing in all-optical networks; Queueing theory with applications to performance modeling of networks and computer systems; Distributed computing; Mobile computing; Operating systems; Compilations systems; Parallel computing.

*Control systems and computer vision*

H-infinity control system design; Robotics; Ultrasonic imaging; 3D reconstruction from 2D images; Automatic visual inspection system; Computer-controlled educational toy; Pattern recognition; Handwritten Chinese character recognition; Signature verification; Intelligent transportation systems; Visual traffic surveillance; Vehicle classification; Video processing and analysis; Internet live traffic video; Fuzzy logic based behavior fusion; Supervised and unsupervised navigation through dynamic obstacle course.

*Digital signal processing*

Subband coding of digital audio signal; Perceptual subband coding of image and video; Modulated filter banks; Multiplier-less perfect reconstruction filter banks; 3D multimedia; Digital imaging technology; Robust adaptive filtering; Subspace tracking for blind channel identification in impulse noise environment; Constrained optimization; Transform algorithms.

*Energy systems, power electronics and electric vehicles*

Advanced electric vehicle technology; Advanced high frequency switch mode power supply technology; Power systems planning and design methodologies; Integrated CAD environment for power systems analysis; Optimization and simulation; Applications of information technologies in power systems; Harmonic pollution monitoring; Power quality; Building services.

*Microelectronics and optoelectronics*

Semiconductor theory and device modeling; Processing of semiconductor devices; Sensors; Heterojunction transistors; RF modeling and circuit design; LED physics and applications; VLSI design methodologies and silicon compilation; Magnetic

resonance imaging engineering; Superconductor electronics; Semiconductor light emitting devices; Optical properties of materials; Organic LED and lasers; Display systems and white-light source.

## *Wireless communications*

MIMO communications systems, ultra-wide band technologies; Spread spectrum techniques; Multi-carrier technologies; Wideband spread spectrum transceiver design; Multi-media source coding and protocol design; Advanced modulation techniques; Mobile channel modeling and frequency planning; Multi-access techniques and tele-traffic optimization; Mobile/wireless networks; High-speed networks.

## **Departmental Requirements**

Candidates are required to make an oral presentation of his/her research proposal as part of the procedure for the confirmation of candidature. Each candidate is also required to give at least one research seminar before submission of thesis.

## **Postgraduate Admissions Advisor**

Dr. Y.S. Hung Tel: 2859 2675 Fax: 2559 8738 E-mail: [eeerpg@eee.hku.hk](mailto:eeerpg@eee.hku.hk)

## Department of Industrial and Manufacturing Systems Engineering

(<http://www.hku.hk/imse/imsehome.html>)

## **Major Research Areas**

### *Engineering management*

Operational research; Production planning and control; Statistical process control; Design of experiments; Reliability; Quality management systems; Total quality management; Quality performance measure.

### *Intelligent automation*

Genetic optimization of manufacturing systems; Fuzzy-logic control of manufacturing systems; Virtual reality.

### *Logistics and supply chain management*

Designs for supply chain management, Supply chain inventory coordination and control; Demand management and order fulfillment; Order distribution; Container/air cargo terminals' operations planning and control; Automated warehouse design; Global SCM scorecard; Strategic alliance; Supply quality management.

### *Manufacturing systems design*

Computer integrated manufacturing; Advanced manufacturing systems; Robotics; Flexible assembly and knowledge-based systems; System modeling and simulation.

### *Manufacturing technology*

CAD/CAM; Mould and die design; Metal cutting; Mechatronics; Polymer rheology and processing technology; Adhesive bounded joints, Nanotechnology.

## **Postgraduate Admissions Advisor**

Professor K.L. Mak Tel: 2859 2586 Fax: 2858 6535 E-mail: [makkl@hkucc.hku.hk](mailto:makkl@hkucc.hku.hk)



**Major Research Areas***Building services*

Dynamic computer modelling and simulation of HVAC systems; Optimization of HVAC system design and component selection; Air diffusion study and displacement ventilation system; Building emulator and building automation systems; Advanced intelligent control and fault detection methodologies based on fuzzy logic, neural network and genetic algorithm.

*CAD/CAM and engineering design*

Geometric modelling applications; Feature-based systems; Three-dimensional and robot vision; Intelligent design systems; Geometric feature recognition; Rapid prototyping; Axiomatic Design; Evolutionary Design and inventive problem solving methods.

*Dynamics, control and robotics*

Automatic detection of joint leakage; Inertial sensor for parts inspection; Mechatronics; Model reduction; Robust control system design; Large-scale systems; Artificial intelligent control; Nonlinear control; Robotics applications; Vibration.

*Energy/environmental engineering*

Air pollution control; Dispersion modelling; Air quality monitoring; Noise modelling and control; Environmental impact assessment; Automotive and alternative fuels testing and development; Solar water pumps; Thermodynamic analysis and applications.

*Marine and offshore engineering*

Optimization of energy production/consumption of main propulsion and other auxiliary systems; Computer-aided ship design; Expert Systems in marine technology; Computational hydrodynamics; Water motions in moon-pools; Ocean towing of large drilling platform; Drag forces due to biofouling.

*Material science/technology*

Microstructural origins of directional mechanical properties in rolled and annealed metals and alloys as they are applied to automobile manufacture; Transmission electron microscopy studies of defects; Modelling of crystalline defects; Structure and properties of plastics and fibre-reinforced composites.

*Mechanics of solids and fracture mechanics*

Advanced finite element formulation; Smart materials and structures; Computational methods for superflexible structures; Fracture/damage mechanics; Study of multi-planar tubular joints; Structure design and analysis.

*Thermofluid mechanics*

Turbulent boundary layer and shear layer flow interaction problems; Biomedical engineering; Flow past porous media; Two-body interaction hydrodynamics; Free-surface far wake of a self-propelled body; Nonlinear water waves; Innovative harbour design and research; Hydrodynamic stability; Vortex dynamics; Multi-scale transport phenomena; Microscale transport phenomena; Multiplicity and stability in transport phenomena.

**Postgraduate Admissions Advisor**

Dr. J. Lam Tel: 2859 2805 Fax: 2858 5415 E-mail: [medept@hkucc.hku.hk](mailto:medept@hkucc.hku.hk)

# Faculty of Law

MPhil and PhD Studies at The University of Hong Kong 2003-2004

Hong Kong presents many opportunities for interesting and important original research in the field of law. In particular, the stresses and strains of adapting an English-based legal system to a financial and trading centre on the coast of China, and the legal aspects of the return of Hong Kong to Chinese sovereignty, have provided many features worthy of study. Yet much more legal research remains to be done. The Faculty welcomes applications from those wishing to do research under supervision for an SJD, MPhil or PhD in Law.

SJD is a degree at doctorate level, which is offered by the Faculty of Law. It is mainly intended for candidates who have a limited background in research, but wish to embark on studies leading ultimately to a doctorate. It is modeled on new developments in Australian universities (themselves emulating US law schools). This is a degree, which combines coursework with a thesis. The coursework is counted towards the degree. Usually the coursework is that the student has to take eight courses at our LLM curriculum offered under the Department of Law, including some prescribed units such as research methodology. A factor in course selection must be preparation for the student's area or research. It would be advisable to do the SJD if candidates are not familiar with the common law system, as they will have a year of prescribed coursework to allow familiarizing with the new system before they embark on the thesis.

All research students have one or more supervisors appointed from among the academic staff of the department in which they are registered. The Graduate School offers a variety of courses and seminars designed to support research students in their work and enhance their personal development.

The Faculty has about 56 teachers from around the world, including Hong Kong, Mainland China, Australia, Britain, Canada, Israel, Malaysia, New Zealand, Tanzania, and the United States. The research interests of the Faculty range over many different fields of law and over many geographical areas. Members of the Faculty are able to offer teaching and supervision in a broad variety of public law (including human rights law, international law, Basic Law, privacy law, criminal law and environmental law), commercial law (including credit and security, company law, taxation and insolvency), Chinese Law (including arbitration, commercial and civil law of China, legal profession, securities law, criminal law, land law, intellectual property, investment law and insolvency law), and other areas such as legal theory, legal education, land law, family law and information technology law.

## Department of Law and Department of Professional Legal Education

(<http://www.hku.hk/law/lawdept.html> and <http://www.hku.hk/law/ple.html>)

### Major Research Areas

#### *Major areas of research interest in the Faculty include*

Commercial law; Company law; Conflict of laws; Constitutional and administrative law; Criminal law and criminology; Environmental law; Family law; Hong Kong legal history and legal system; Human rights law; Information technology law; Insolvency law; International trade law, including the likely impact of China's entry into the WTO; Jurisprudence of legal theory; Land law; Law of the People's Republic of China; Legal education; Medico-legal issues; Privacy law; Public International law; Revenue law; Tort law.

#### *Current and recent MPhil and PhD research topics include*

Civil jurisdiction of the Hong Kong courts; Commercial and company laws of China; Company law; Comparative environmental law; Comparative study of the legal aspects of credit security in the Asian Region; Constitutional law; Constitutional law (Chinese and comparative); Consumer protection: a study of the PRC consumer protection law; Critical theories of law with a critical analysis of American constitutional law; Death penalty, the right to life and human rights in China; Future relations between the laws of HKSAR and mainland China; Human rights law; Information technology law; Intellectual property

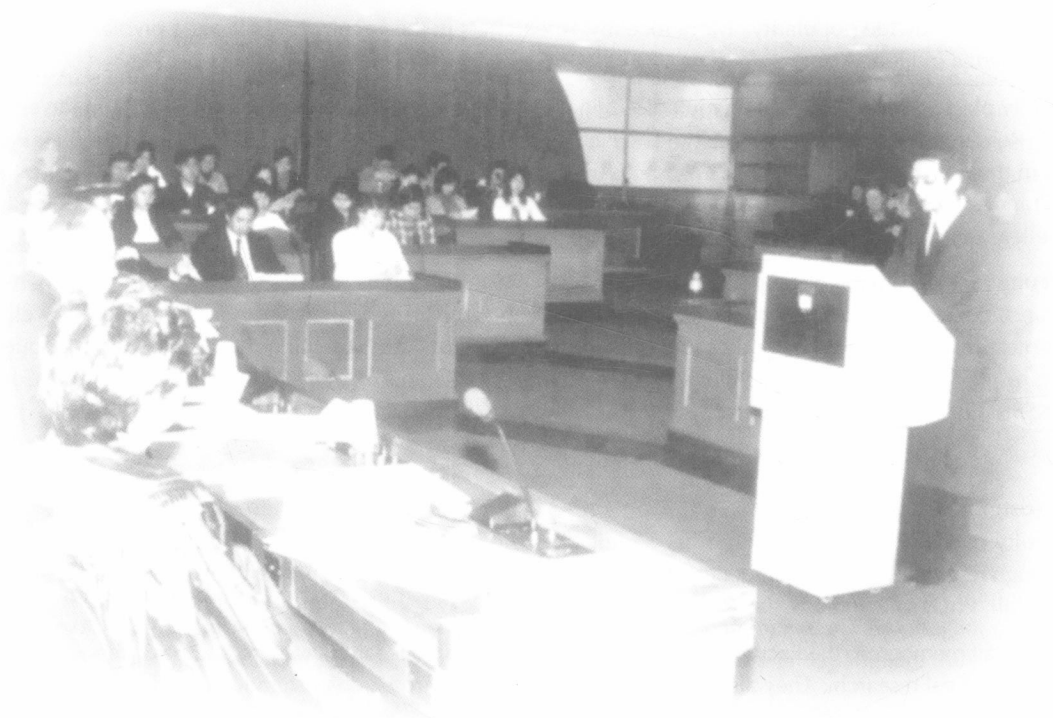
and comparative law; Interpretation and implementation of China's national labour health and safety regime at the local level: a comparison of Shanghai and Beijing; Jurilinguistics; Justification of punishment; Legal challenges posed by e-business; Legal impact of China's entry into the WTO; Legal protection of intellectual property in international trade; Medico-legal issues; Public policies, infrastructural development and the law in China and Hong Kong; Securities regulation.

**Departmental Requirement**

Presentation of seminar at confirmation and/or transfer of candidature.

**Postgraduate Admissions Advisor**

Mr. Wilson Chow Tel: 2859 2973 Fax: 2559 5690



# Faculty of Medicine

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Background

The Faculty of Medicine is the first faculty established in The University of Hong Kong. The University, founded in 1911, took over the work of the College of Medicine which was set up in 1887. Apart from training doctors and nurses, the Faculty has always been at the forefront of medical research and development of new clinical services for the benefit of mankind.

## Departments and Staff

The Faculty has 17 teaching departments which are zoned into 3 generic groups of medical sciences, surgical sciences and health sciences, each with a mix of clinical and basic science departments to enhance synergism. The Medical Sciences Group comprises the Departments of Anatomy, Diagnostic Radiology, Medicine and Pharmacology; the Surgical Sciences Group comprises the Departments of Anaesthesiology, Biochemistry, Clinical Oncology, Orthopaedic Surgery, Pathology and Surgery; the Health Sciences Group comprises the Departments of Community Medicine, Microbiology, Nursing Studies, Obstetrics and Gynaecology, Paediatrics and Adolescent Medicine, Physiology and Psychiatry. The Faculty also works closely with the Institute of Molecular Biology of the University.

Currently, there are around 200 full-time teaching staff members in the Faculty.

## Research Activities

With a strong research base, the Faculty has made tremendous contributions to the study and treatment of various diseases. The first case of bone marrow transplantation and the first case of successful liver transplantation in Hong Kong were performed at Queen Mary Hospital. The novel technique of adult living related right lobe liver transplantation was pioneered here and had since gained worldwide popularity. More recently, researchers in the Faculty had played a pivotal role in the control of the H5N1 influenza in Hong Kong.

The Faculty places strong emphasis on multidisciplinary research, and has played a significant role in the establishment of the Genome Research Centre in the University. The Faculty has a significant number of collaborative projects with renowned institutions in the Mainland and overseas. The HKU-Pasteur Research Centre is a joint venture with the prestigious Institut Pasteur of France. Under the guidance of Dr David Ho, Director of the Aaron Diamond AIDS Research Centre and affiliate of the Rockefeller University of New York, an AIDS Institute based at the Faculty, will be established.

The Faculty receives financial support for research activities from various sources in different forms. There are different research grants, conference grants, and fellowships offered by the University and other funding agencies, as well as donations made by professional and industrial bodies and individual benefactors. In particular, the Faculty has continued to achieve outstanding results in the annual Competitive Earmarked Research Grants exercise of the Research Grants Council, having secured HK\$39.79 million in 2001/02 and HK\$46.07 million in 2002/03.

## Research Postgraduate Programmes

The Faculty of Medicine shares with other Faculties in the University the common goals of imparting knowledge to students through research. Every department in this Faculty therefore actively participates in the training of research postgraduate students - MPhil, PhD, MD and MS.

Academic staff members in the Faculty undertake a wide spectrum of research, from frontier basic medical science research to cutting edge clinical research. They also supervise a large number of research postgraduate students coming from local and overseas institutions. Clinical departments have the flexibility of conducting and supervising research either in laboratories or in clinical settings. Research postgraduate students of the Faculty have the benefit of working in state-of-the-art laboratories.

The Faculty has been attracting high calibre candidates to enrol on the research postgraduate programmes. The programmes are not only popular with medical graduates, but also graduates in biological and biomedical sciences, and health sciences. Besides, graduates in physical sciences, engineering, computer sciences engineering, and social sciences are also welcome to apply.

### Research areas

#### *Pharmacology of intravenous anaesthetic drugs*

Multiple areas of the pharmacology of new intravenous anaesthetics, in particular propofol and remifentanyl are investigated. Pharmacokinetic modeling; patient- controlled and target-controlled infusion; ethnic variation in pharmacokinetics and pharmacodynamics; pharmacokinetic variations in various disease states; dose response characteristics.

#### *Depth of anaesthesia monitoring*

The application of new anaesthetic depth monitors such as bispectral index (BIS) and brainstem auditory evoked potential (BAEP) monitoring; effect of anaesthetic agents on these monitors; use of these monitors to guide administration of anaesthetics.

#### *Perioperative haemostatic problems*

Effect of various anaesthetic agents on haemostasis; value of bedside haemostatic monitors such as thrombelastography and platelet function analysers; effect of haemodilution on coagulation.

#### *Sedation in dental anaesthesia*

Safety of intravenous sedation; monitoring of depth of sedation; pharmacology of sedative drugs.

### Postgraduate Admissions Advisor

Dr. K.F. Ng Tel: 2855 3303 Fax: 2855 1654 E-mail: [jkfng@hkucc.hku.hk](mailto:jkfng@hkucc.hku.hk)

## Department of Anatomy

### Major Research Areas

#### *Molecule Anatomy*

Study the structure and function of prion,  $\beta$ -amyloid peptide,  $\beta$ -synuclein, and apoE4 molecules in understanding the amyloidogenesis or mechanism in prion diseases, Alzheimer's disease, Parkinsonism, and diabetic neuropathy and motoneuron diseases; In silico, in vitro, in vivo, and clinical trial studies of novel or new potential drugs efficacies in preventing neuron death via control of signal transduction; In silico, in vitro, in vivo, and clinical trial studies of novel or new potential drugs efficacies in differentiating cancer cells via control of signal transduction.

*Contact Person* Dr. R.Chau Tel: 2819 9101 E-mail: [chaurmw@hkucc.hku.hk](mailto:chaurmw@hkucc.hku.hk)

#### *Feeding Studies*

This research is interdisciplinary, aimed at (i) oral function analysing food texture using methods from engineering/materials science; and (ii) sensory cues that primates (our nearest relatives) use to find foods.

*Contact Person* Professor P. Lucas Tel: 2819 9172 E-mail: [pwlucas@hkucc.hku.hk](mailto:pwlucas@hkucc.hku.hk)

#### *Cancer*

Cancer cell proliferation and progression, telomere function, regulation of telomerase expression; Cellular signaling of oncogenes and tumour suppressor genes, molecular genetics of nasopharyngeal carcinoma and esophageal carcinoma; The mechanisms of prostatic and breast carcinogenesis; Mechanism of cell immortalization and malignant transformation.

*Contact Person* Dr. George S.W. Tsao Tel: 2819 9227 E-mail: [gsweetsao@hkucc.hku.hk](mailto:gsweetsao@hkucc.hku.hk)

## *Endocrinology*

Topographic relationships between hormone-secreting cells and cytokine-producing cells in the adenohypophysis; The roles of testosterone and oestrogens in prostate and breast carcinogenesis; The roles of nitric oxide in the functional regulation of hypothalamic-pituitary system in both physiological and pathological conditions.

**Contact Person** Professor Y.C. Wong Tel: 2819 9226 E-mail: [ycwong@hkucc.hku.hk](mailto:ycwong@hkucc.hku.hk)

## *Molecular Medicine*

The role of nitric oxide (NO) in liver and lung injury; Molecular mechanisms involved in the adaptive responses of liver in chronic hypoxia; Signaling pathways of inflammation in liver and lung injury.

**Contact Person** Dr. George Tipoe Tel: 2819 9185 E-mail: [tgeorge@hkucc.hku.hk](mailto:tgeorge@hkucc.hku.hk)

## *Neuroscience*

Distribution and function of regulatory peptides and neuropeptides in the peripheral nervous system; Investigation of molecular signaling pathways leading to neuronal death and apoptosis in neurodegenerative disorders including Alzheimer's disease and glaucoma; Neuroprotection and neuroregeneration of the retinal ganglion cells in adult mammals; Morphology and functions of vertebrate nervous system during normal development; To find a cure for paralysis associated with spinal cord injury and other CNS diseases; How neurotrophic factors and cell adhesion molecules influence neuronal survival and axonal outgrowth during development and after injury of the nervous system; Molecular and cellular interactions between neurons and glial cells.

**Contact Persons** Dr. H. Yip Tel: 2819 9294 E-mail: [hkyip@hkusua.hku.hk](mailto:hkyip@hkusua.hku.hk)  
Dr. W.T. Wu Tel: 2819 9187 E-mail: [wtwu@hkucc.hku.hk](mailto:wtwu@hkucc.hku.hk)

## *Reproduction*

The effects of male accessory sex gland secretion on early embryonic development was studied in the golden hamster: We focused on cascade of events in oocyte activation and signal transduction during fertilization; The molecular mechanisms involved in ovarian failure in galactosemic rat; Role of leptin in pregnancy.

**Contact Person** Dr. W.S. O Tel: 2819 9238 E-mail: [owaisum@hkucc.hku.hk](mailto:owaisum@hkucc.hku.hk)

## *Traditional Chinese Medicine*

The effect of various types of TCM on neuroprotection and neuroregeneration of CNS neurons including those from the eye and spinal cord; The mechanisms of the antioxidant properties of green tea polyphenols on protection of the liver from carbon tetrachloride toxicity; Studies on Chinese herbs that promote blood flow and/or enhance immune response in the treatment of glaucoma.

**Contact Person** Professor K.F. So Tel: 2819 9216 E-mail: [hmaskf@hkucc.hku.hk](mailto:hmaskf@hkucc.hku.hk)

## **Postgraduate Admissions Advisor**

Professor K.F. So Tel: 2819 9216 Fax: 2817 0857 E-mail: [hmaskf@hkucc.hku.hk](mailto:hmaskf@hkucc.hku.hk)

## Department of Biochemistry

(<http://www.hku.hk/biochem/>)

## **Major Research Areas**

### *Applied bioinformatics*

"In silico" analysis and prediction of gene regulation; protein structure modeling and analysis; development of methods for the presentation and analysis of sequence families; protein flexibility.

*Cell cycle regulation and cancer*

Regulation of cell cycle progression; the control of growth and survival of cancerous cells; altered glycosylation in tumour progression.

*Functional genetics*

Determination and analysis of gene function by gene targeting ('knock-out') technology.

*Glycobiology*

Glycobiology of inflammation and tissue damage; mechanisms of kidney stone formation.

*Molecular biology of the extracellular matrix*

Regulation of chondrocyte differentiation and gene expression; identification of transcription factors and their target genes important for cartilage formation; genetic factors for the regulation of bone growth and healing; transgenic mouse models of inherited connective tissue diseases in man; regulation of matrix assembly in cartilage and bone.

*Molecular biology of intracellular transport*

Intracellular transport processes: study of the interaction between actin and microtubule networks using mice with conditional mutations in genes coding for unconventional myosins and ubiquitously expressed kinesin.

*Molecular developmental biology*

Genes involved in early mammalian development, tissue regeneration and skeletal development; analysis of regulation of homeobox and Sox gene expression and function; inner ear development.

*Molecular diagnostics*

Development of fast methods for nucleic acid-based diagnostics.

*Neurobiochemistry*

Developmental biology of the nervous system; nerve cell membrane functions; the role of proteoglycans in neuronal growth and regeneration; hearing and balance defects.

*Molecular structural biology*

Three dimensional crystallographic determination, detail biochemical and enzymological analyses of proteins coupled with modelling provide insights into the molecular basis of disease.

*Reproductive biochemistry*

Biochemical studies of male sex gland components, their interaction with sperm and their effect on embryogenesis.

*Signalling mechanisms*

Receptor coupling mechanisms of cardiac kappa-opioids; gangliosides as multifunctional biomodulators in signal transduction; structure-function relationship of ganglioside-modulated protein kinases.

*Transgenic technology*

Production of therapeutic proteins in transgenic animals; cell and gene-based therapy in animal models.

## Departmental Requirements

- 1 Annual seminar presentation on research progress.
- 2 Written presentation of a literature review in the first year.
- 3 Written progress reports (twice annually).
- 4 Active participation in weekly journal club and annual scientific retreat.
- 5 Regular attendance of research seminars.

Research students are encouraged to broaden their knowledge and skills by actively participating in extra-departmental courses/workshops/symposia/conferences.

## Postgraduate Admissions Advisor

Dr. Mai Har Sham Tel: 2819 9195 Fax: 2855 1254 E-mail: [mhsham@hkucc.hku.hk](mailto:mhsham@hkucc.hku.hk)

## Department of Clinical Oncology

(<http://www.hku.hk/oncology>)

### Major Research Areas

#### *Clinical research*

New radiotherapy techniques including the use of 3-dimensional computer planning systems; stereotactic radiotherapy and conformal radiotherapy; nasopharyngeal carcinoma, especially on its relationship with the Epstein Barr virus, multimodality treatment with the aim to improve control as well as to minimize side effects; multimodality treatment of gonadal and extragonadal germ cell tumours, colorectal, oesophageal cancer, breast cancer, and thyroid cancer, and the elucidation of the related prognostic factors.

#### *Identification of cancer-related genes*

There are two kinds of cancer related genes, oncogene and tumor suppressor gene. Cancer development and progression is a multiple-step process caused by activation of oncogene and/or inactivation of tumor suppressor gene. The development of new diagnostic, preventive, and treatment approaches requires well understanding of the mechanisms of the complex multi-step process of tumorigenesis through the characterization of isolated oncogene or tumor suppressor gene. Recently developed techniques, such as comparative genomic hybridization (CGH), tissue microarray, genomic DNA microarray, multi-color fluorescence in situ hybridization (mFISH), proteomics, chromosome microdissection, and cDNA subtraction, are applied to identification of recurrent chromosomal alterations in Hepatocellular carcinoma (HCC), nasopharyngeal carcinoma (NPC), colorectal cancer, esophageal cancer, ovarian cancer, and lung cancer. Further molecular characterization of recurrent alteration regions may lead to the identification of genes associated with the development and progression of cancers.

## Postgraduate Admissions Advisors

Dr. Dora Kwong Tel: 2855 4521 Fax: 2872 6426

Dr. Xin-yuan Guan Tel: 2819 2888 Fax: 2816 9126 E-mail: [xyguan@hkucc.hku.hk](mailto:xyguan@hkucc.hku.hk)

## Department of Community Medicine

(<http://www.hku.hk/cmd/index.htm>)

### Major Research Areas

#### *Epidemiology and public health*

Epidemiology of cancer; cardiovascular and respiratory diseases and risk factors; disease prevention and screening; lifestyle and molecular epidemiology; occupational and environmental health; adolescent health.

**Contact Person** Professor T.H. Lam Tel: 2819 9287 Fax: 2855 9528 E-mail: [hrrmlth@hkucc.hku.hk](mailto:hrrmlth@hkucc.hku.hk)

#### *Biostatistics and computing*

Statistical modelling; mortality and hospital admissions studies; secular trends; seasonality and geographical variations in



health studies; health care needs estimation; air pollution and health studies; socioeconomic, environmental and genetic studies; influenza epidemic studies.

*Contact Person* Dr. C.M. Wong Tel: 2819 9109 Fax: 2855 9528 E-mail: [hmrwcm@hkucc.hku.hk](mailto:hmrwcm@hkucc.hku.hk)

*Health behaviour and psycho-oncology*

Mental health, depression, suicide, eating disorder; psycho-oncology; disability and rehabilitation; elderly health care need and utilization, inequality and perceived economic conditions.

*Contact Person* Dr. R. Fielding Tel: 2819 9288 Fax: 2855 9528 E-mail: [fielding@hkusua.hku.hk](mailto:fielding@hkusua.hku.hk)

*Health services research, health policy and economics*

Health services research; evidence based medicine; clinical decision analysis; health informatics; health care financing, national and domestic health accounts.

*Contact Person* Dr. S.M. McGhee Tel: 2819 9193 Fax: 2855 9528 E-mail: [smmcghee@hkucc.hku.hk](mailto:smmcghee@hkucc.hku.hk)

*Tobacco control*

Epidemiology of smoking related disorders; prevalence and factors of smoking; passive smoking; policy development, tobacco industry strategies; public opinion surveys; smoking cessation and adherence to therapy; smoke-free places; evaluation; youth and women smoking.

*Contact Person* Professor A.J. Hedley Tel: 2819 9282 Fax: 2855 9528 E-mail: [commed@hkucc.hku.hk](mailto:commed@hkucc.hku.hk)

**Postgraduate Admissions Advisor**

Dr. R. Fielding Tel: 2819 9288 Fax: 2855 9528 E-mail: [fielding@hkusua.hku.hk](mailto:fielding@hkusua.hku.hk)

## Department of Diagnostic Radiology

(<http://www.hku.hk/diaradio>)

### Major Research Areas

*Thoracic radiology*

High resolution computed tomography (HRCT), quantitative CT and 3D lung volumetry in the assessment of lung diseases.

*Hepatobiliary and gastrointestinal radiology*

Transcatheter arterial treatment and imaging of hepatocellular carcinoma.

*Paediatric radiology*

Neuroimaging, including applications of functional imaging techniques, imaging of Thalassaemia; Paediatric and adult oncologic imaging.

**Postgraduate Admissions Advisor**

Dr. P.L. Khong Tel: 2855 3307 Fax: 2855 1642 E-mail: [plkhong@hkucc.hku.hk](mailto:plkhong@hkucc.hku.hk)

### Major Research Areas

#### *Cardiology*

*Coronary heart disease* - Prevention and percutaneous revascularisation of stable ischaemic syndromes; epidemiology and treatment of acute coronary syndromes.

*Cardiac pacing* - New indication and technology in pacing therapy for treatment of heart failure and cardiac arrhythmia.

*Cardiac arrhythmia* - New innovation on energy source for catheter ablation, transvenous defibrillation and implantable device for treatment of atrial fibrillation; Pledge clamp study on heart failure related arrhythmogenic potential.

*Heart failure* - Hormonal changes and animal models of heart failure; Cardiac Resynchronization therapy.

*Hypertension* - Left ventricular hypertrophy regression and salt balance.

Angiogenesis and cell repair - Cell therapy to create new vessels and myocardium in humans and large animals.

*Contact Person* Dr. H.F. Tse Tel: 2855 4694 Fax: 2818 6304 E-mail: [hftse@hku.hk](mailto:hftse@hku.hk)

#### *Clinical Pharmacology*

Study of drug utilization (quantitative and qualitative aspects); Comparison of pertinent utilization patterns in Hong Kong and overseas, especially with respect to antibiotics and antiasthmatic medication; Auditing drug usage/prescribing; Inter-ethnic drug pharmacokinetics and drug use behaviour; Developing antimicrobial and other drug therapy and prophylaxis guidelines; Antimicrobial aspects of Traditional Chinese Medicines (Herbs); Clinical neuropharmacology and drug bioavailability problems; Genetic and environmental factors causing hypertension; Regression of hypertensive left ventricular hypertrophy; Vasoactive peptides, natriuretic peptides, bradykinin and adrenomedullin; Antihypertensive and lipid lowering drugs; Development of oral arsenical therapy for leukemia patients (including pharmacokinetic studies)- work in progress in collaboration with the Haematology Division.

*Contact Person* Dr. B.M.Y. Cheung Tel: 2855 4049 Fax: 2904 9443 Email: [mycheung@hku.hk](mailto:mycheung@hku.hk)

#### *Dermatology*

*The use of DOPA in enhancing the clinical outcome of laser surgery for melanocytic nevi:*

Previous use of laser to remove melanocytic nevi has achieved clinical but incomplete histological clearance. The use of DOPA to improve staining of the melanocytes may be able to achieve a better clinical outcome.

*The use of laser and intense pulsed light source for non-ablative skin rejuvenation in Asian:*

The aim of this study is to assess and compare the efficacy of 1320nm Nd:YAG laser and intense pulsed light source for skin rejuvenation in Asians. Subjective assessment by patients together with objective assessment including cutometer, ultrasound and blind observers assessment will be performed.

*Contact Person* Dr. H.H.L.Chan Tel: 2855 3603 Fax: 2818 6474 E-mail: [hhlchan@hku.hk](mailto:hhlchan@hku.hk)

#### *Endocrinology & Metabolism*

Molecular genetics and pathogenesis of atherosclerosis, diabetes and diabetic complications; Clinical and basic studies on obesity; Clinical studies on growth hormone excess and deficiency; Pathogenesis and management of autoimmune thyroid disease, genetics and environmental determinants of bone mass and osteoporosis.

*Contact Person* Professor K.S.L. Lam Tel: 2855 4769 Fax: 2816 2187 E-mail: [ksllam@hku.hk](mailto:ksllam@hku.hk)

#### *Family Medicine*

*Health-related quality of life* - The validation and standardization of health-related quality of life (HRQOL) assessment instruments to be used as an outcome measure.

*Cross-cultural research* - Cross-cultural validation and adaptation of HRQOL measures.

*Qualitative research* - The use of qualitative methods in community health research.

*Primary care* - Management of upper respiratory tract infections by family doctors in Hong Kong.

*Medical education* - Undergraduate and postgraduate medical education research by adopting a combined qualitative and quantitative approach.

**Contact Person** Dr. C.L.K. Lam Tel: 2578 5651 Fax: 2814 7475 E-mail: [cklam@hku.hk](mailto:cklam@hku.hk)

#### *Gastroenterology & Hepatology*

- (1) *Helicobacter pylori*: disease pathogenesis, molecular microbiology, carcinogenesis;
- (2) stomach and colon cancer: signal transduction, chemoprevention, clinical trials, computer-assisted screening;
- (3) Gastrointestinal motility;
- (4) experimental ulcers: free radicals, cell biology and apoptosis.

The Hepatitis B virus: approximately 400 million people in the world is infected with the hepatitis B virus for life. Of these around 75% are Chinese. This infection accounts for the very high incidence of liver cancer and cirrhosis of the liver in Hong Kong and China.

The Hepatology Team is world recognized for its research on the hepatitis B virus including its molecular virology, its associated mutations and the natural progression of the disease it causes in men. The Team also pioneers in some of the exciting novel treatment for the virus.

**Contact Person** Professor C.L. Lai Tel: 2855 4477 Fax: 2816 2863 E-mail: [hmelcl@hku.hk](mailto:hmelcl@hku.hk)

#### *Haematological Oncology*

Clinical protocols for treatment of leukaemia and lymphomas, detection of minimal residual disease and molecular mechanisms in haematologic malignancy. Clinical protocols for bone marrow transplantation. Molecular genetics of hematological malignancies, comparative genomic hybridization in haematological malignancies and other solid tumours.

**Contact Person** Professor Y.L. Kwong Tel: 2855 5859 Fax: 2974 1165 E-mail: [ykwong@hku.hk](mailto:ykwong@hku.hk)

#### *Medical Physics*

Measurement of nitric oxide(NO), superoxide, hydroxyl, lipid free radicals in various organs of animal models in pathophysiological states under treatment of western and/or Chinese medicines using Electron Paramagnetic Resonance spectroscopy; Measurement of nitric oxide in blood of patients using chemiluminescence; In vivo measurement of NO using microsensor and development of other microsensors; Study of pathogenesis using computerized graphic protein - protein interaction; Brain waves of human in pathophysiological conditions; Study of cholesterol trafficking under oxidative stress in cells; Measurement of intra-, extra- cellular oxygen content in cells; Development of anti-aging herbal medicine; Development of new algorithm for identification of cardiac and other electrical signals.

**Contact Person** Professor P.C.W. Fung Tel: 2855 3603 Fax: 2818 6474 E-mail: [hspfcw@hku.hk](mailto:hspfcw@hku.hk)

#### *Molecular Medicine*

Development of novel diagnostic techniques (including non-invasive prenatal diagnosis and pre-implantation diagnosis) for common genetic diseases such as thalassemias, haemophilias, Duchenne muscular dystrophy, spinal muscular atrophy and Huntington's disease; Genome-wide scan with microsatellite markers for linkage of new disease gene/s.

Development of DNA microarray technology for diagnosis and understanding the molecular pathology of genetic diseases and cancers.

**Contact Person** Professor V.N.Y. Chan Tel: 2855 4477 Fax: 2816 2863 E-mail: [vnychan@hku.hk](mailto:vnychan@hku.hk)

#### *Nephrology*

Immuno-pathogenesis and treatment of glomerulonephritis focus on IgA nephropathy and lupus nephritis and renal transplant rejection; Clinical, pathological, and virological features of hepatitis B and hepatitis C virus infection in patients on dialysis or after renal transplantation; Human glomerular mesangial cell pathophysiology; Advances in peritoneal dialysis therapy.

**Contact Person** Professor K.N. Lai Tel: 2855 4477 Fax: 2816 2863 E-mail: [knlai@hku.hk](mailto:knlai@hku.hk)

## *Neurology*

Parkinson's disease - Pathogenesis and treatment.

Amyotrophic lateral sclerosis - Pathogenesis and treatment.

Epilepsy - Evaluation of different treatment including epilepsy surgery.

Stroke - In vivo and in vitro studies on neuroprotection during ischaemia; Functional CT perfusion study during the acute phase.

**Contact Person** Dr. S.L. Ho Tel: 2855 3315 Fax: 2974 1171 E-mail: [slho@hkucc.hku.hk](mailto:slho@hkucc.hku.hk)

## *Respiratory medicine*

Bronchiectasis - Mechanisms of neutrophil recruitment; clinical-ultrastructural study of airway cilia; Pseudomonas aeruginosa adherence to mucosa basement membrane; pathophysiologic role of adhesion molecules expression, nitric oxide and endothelin-1; in-vitro studies of bacterial (H.pylori, Pseudomonas aeruginosa) toxins on bronchial biopsy culture models + TEM, intracellular iNOs and cytokine expression; airways remodelling.

Lung cancer - Molecular genetics; cytotoxic chemotherapy and Chinese herbal medicine for advanced non-small cell carcinoma; environmental risk factor and genes interaction in pathogenesis.

Obstructive sleep apnoea - Epidemiology in Chinese and its relationship to anthropometric characteristics, treatment innovation; Mechanisms of vascular homeostasis; Metabolic aspects in pathogenesis and pathophysiology.

Tuberculosis - A surveillance program for tuberculosis in old age homes in Hong Kong.

**Contact Person** Dr. K.W.T. Tsang Tel: 2855 4542 Fax: 2872 5828 E-mail: [kwtsang@hku.hk](mailto:kwtsang@hku.hk)

## *Rheumatology/clinical immunology*

*Pathogenesis and treatment of allergies, asthma and autoimmune rheumatic disorders:*

These include research into biochemical defects in aspirin-sensitive asthma, the efficacy and immunological changes of allergic immunotherapy for allergic rhinitis and asthma, and characterization of shellfish antigens.

*Immunopathogenesis of systemic lupus erythematosus:*

Immunogenetic studies; defects in apoptosis and handling of apoptotic bodies; the role of dendritic cells; and effects of sex hormones on immune cell function.

*In-vitro and clinical studies:*

Traditional Chinese medicine in rheumatoid arthritis.

**Contact Person** Professor C.S. Lau Tel:2855 4049 Fax: 2904 9443 E-mail: [cslau@hku.hk](mailto:cslau@hku.hk)

## **Postgraduate Admissions Advisors**

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## Department of Microbiology

(<http://www.hku.hk/mibpage/>)

### **Major Research Areas**

#### *Antimicrobial resistance*

The research program target antibiotic resistance in: Strep. pneumoniae, enterococci, Staph. aureus, Burkholderia pseudomallei and enterobacteriaceae. This ongoing program provides opportunities in the following areas: epidemiology of resistant bacteria, resistant gene ecology, mechanisms of resistance, clinical relevance, novel methods for diagnosis of difficult-to-detect resistance & evaluation of new antibiotics. Established methods in team: cloning, gene expression, enzyme kinetics, antibiotic assays, chemical analysis, in-vitro assessment of antibacterial activity. Ongoing projects:

- Antibiotic resistance (quinolones, b-lactams) in *Streptococcus pneumoniae*: epidemiology & mechanisms.
- Novel or emerging b-lactamases in Gram negative bacteria.
- Development and evaluation of new glycopeptides for vancomycin resistant Gram positive bacteria.

**Contact Person** Dr. P.L. Ho Tel: 2855 4193 Fax: 2855 1241 E-mail: [plho@hkucc.hku.hk](mailto:plho@hkucc.hku.hk)

**Emerging infectious diseases, novel bacteria, and bacterial genomics**

Our laboratory uses a wide range of molecular techniques, immunological techniques, animal models, and bioinformatics tools to discover and characterize emerging pathogens and pathogenic forms and to generate vaccines against them.

**Contact Person** Dr. P.C.Y. Woo Tel: 2855 4715 Fax: 2855 1241 E-mail: [pcywoo@hkucc.hku.hk](mailto:pcywoo@hkucc.hku.hk)

**Emerging infectious diseases, *Penicillium marneffei*, and fungal genomics**

*Penicillium marneffei* is a dimorphic fungus affecting the immunocompromised patients in Southeast Asia. Our laboratory utilizes phenotypic, genotypic, and genomic approaches to study emerging pathogens, particularly *Penicillium marneffei*. After development of major diagnostic tests, cloning and characterization of important genes, and exploration of the genome of the fungus, complete genome sequencing of *Penicillium marneffei* is in progress in our laboratory. This is going to yield important information and new insights in fungal genomics, fungal dimorphism, and important diagnostic, therapeutic, and vaccine targets.

**Contact Persons** Prof. K.Y. Yuen Tel: 2855 4892 Fax: 2855 1241 E-mail: [kyyuen@hkucc.hku.hk](mailto:kyyuen@hkucc.hku.hk)

Dr. S.S.Y. Wong Tel: 2855 4897 Fax: 2855 1241 E-mail: [samsonsy@hkucc.hku.hk](mailto:samsonsy@hkucc.hku.hk)

**HIV/AIDS**

Drug resistance of the Human Immunodeficiency Virus (HIV)

Rapid and simultaneous screening of the HIV, the hepatitis B virus and the hepatitis C virus in donated blood.

**Contact Person** Dr. S.W.K. Im Tel: 2855 4822 Fax: 2855 1241 E-mail: [swkim@hkucc.hku.hk](mailto:swkim@hkucc.hku.hk)

**Immunotherapy for chronic viral infections and related cancers**

The research program includes:

1. For chronic HBV infection: a) Development of therapeutic vaccines for immune intervention of chronic HBV infection. b) Functional study of dendritic cells in chronic hepatitis B patients.
2. For EBV related NPC: a) Development of EBV vaccines for immune intervention of NPC. b) Study of gd T cells in immune surveillance against NPC.
3. For HIV infection: a) Polymorphism of chemokine receptors and their ligands in Chinese. b) Study of HIV co-receptor expression on immune cells in HIV infection.

**Contact Person** Dr. B.J. Zheng Tel: 2855 4383 Fax: 2855 1241 E-mail: [bzheng@hkucc.hku.hk](mailto:bzheng@hkucc.hku.hk)

**Influenza**

The research program includes a) the ecology, molecular evolution and epidemiology (including mathematical modelling) of animal and avian influenza, b) the application of influenza reverse genetics to the study of viral attenuation and inter-species transmission and vaccine development, c) immuno-pathogenesis and viral macrophage interactions, d) disease burden and health economics of human influenza, e) diagnostic methods and clinical disease. This is a large multi-disciplinary research program with well established collaborative links with key international research centers.

**Contact Person** Professor J.S.M. Peiris Tel: 2855 4888 Fax: 2855 1241 E-mail: [malik@hkucc.hku.hk](mailto:malik@hkucc.hku.hk)

**Medical bioinformatics**

Our laboratory utilizes various molecular biology and bioinformatics techniques for the study of medically important bacteria.

**Contact Person** Dr. S.K.P. Lau E-mail: [skplau@hkucc.hku.hk](mailto:skplau@hkucc.hku.hk)

## *Microbial Pathogenesis*

The research program includes a) Molecular epidemiology and pathogenesis of enteric pathogens including *Vibrio cholerae* and *E. coli* O157:H7 in relation to the public health and environmental hazards, b) Drug resistance mechanism of *Mycobacterium tuberculosis* and Human Immunodeficiency Virus Type 1 (HIV-1). This is a large multi-disciplinary research program with well established collaborative links with key international research centers.

**Contact Person** Dr. W.C. Yam Tel: 2855 4821 Fax: 2855 1241 E-mail: [wcyam@hkucc.hku.hk](mailto:wcyam@hkucc.hku.hk)

## *Molecular studies of emerging pathogens*

Our group focuses on the application and integration of high-throughput screening (HTS) technologies in dissecting microbial pathogenesis. Conventional genetic approaches (cloning, site-directed deletions, etc.) are also employed in conjunction with HTS to identify microbial targets of important diagnostic and therapeutic values.

**Contact Person** Dr. R.Y.T. Kao Tel: 2855 4891 Fax: 2855 1241 E-mail: [rytkao@hkucc.hku.hk](mailto:rytkao@hkucc.hku.hk)

## **Postgraduate Admissions Advisor**

Professor J.S.M. Peiris Tel: 2855 4888 Fax: 2855 1241 E-mail: [malik@hkucc.hku.hk](mailto:malik@hkucc.hku.hk)

## Department of Nursing Studies

(<http://www.hku.hk/nursing/>)

### **Major Research Areas**

#### *Women's health*

- A comparison of supportive care activities during labour between new immigrants from mainland China and native born Hong Kong Women
- Learning needs assessment of women, their partners, and health professionals during preconception, pregnancy, and early parenting
- Quality motherhood: An exploratory study on Maternity Service in Hong Kong
- Family belief systems: An exploratory study of the meaning of breast cancer for women and their families in Hong Kong Pilot Study
- Do pregnant women enjoy the supports and relationships they have?
- The effectiveness of a psychoeducational intervention to achieve & maintain dietary calcium intake of pre-menopausal Chinese women
- Empowerment intervention for abused women
- Support and distress of Chinese abused women

#### *Community health/health promotion*

- Messages of health and health related activities presented to Hong Kong adolescents by Teen Magazines
- The relationships among motivational and situational variables that influence infant feeding behaviors in Hong Kong
- Assessment, validation, and promotion for the quality of life and continuum of care of elderly people in Hong Kong
- Couples experience of postpartum depression

#### *Tobacco and health*

- A randomised controlled trial of a nurse-delivered staged matched smoking cessation intervention for cardiac patients
- Effectiveness of nurses' health education intervention in preventing environmental tobacco smoke exposure in sick children
- Nurses' role in tobacco and health
- Helping patients stop smoking: the nurses' responsibility

- Are nurses ready to fight the tobacco epidemic?: A comparison study with mainland China
- Tobacco control education in Schools of Nursing in three Pacific Rim countries

#### *Nursing education*

- An evaluation of the effectiveness of problem-based learning in developing nursing students' critical thinking
- Faculty development in preparation for the implementation of problem-based learning: A developmental approach in the Department of Nursing Studies
- Improving the Nursing Curriculum through development of teaching innovations in the psychomotor domain
- Clinical teaching and learning: An objective structured and experiential learning approach
- Do nursing students think critically: A comparative study of the critical thinking between Chinese and Australian nursing students
- Enhancing student learning through assessment by portfolio
- Practising health assessment - A reality or rhetoric in the nursing profession of Hong Kong?
- Adopting a context-based problem-based learning model to promote student learning
- Trans-cultural exchange practicum for Pre-registration nursing students
- An evaluation of student learning outcomes related to infant feeding in the nursing curriculum

#### *Child health nursing*

- Parental perception of childhood immunizations in Hong Kong

#### *Cancer nursing*

- Evaluation of two oral care protocols on the incidence and severity of oral mucositis in patients undergoing therapeutic irradiation
- Impact of fatigue on patients' quality of life after bone marrow transplantation and effects of self-initiated fatigue-reducing strategies

Postgraduate Admissions Advisor

Dr. Agnes Tiwari Tel: 2819 2629 Fax: 2872 6079 E-mail: [afytiwar@hkucc.hku.hk](mailto:afytiwar@hkucc.hku.hk)

## Department of Obstetrics and Gynaecology

(<http://www.hku.hk/obs gyn/>)

### Major Research Areas

#### *Oncology*

Tumour marker in gynecological cancers; Oncogenes in gynaecological malignancies; Tumour suppressor genes and virus in cervical and vulva cancer; Chemosensitivity and drug resistance in gynaecological cancers; Management of gynaecological malignancies; Study of epigenetics factors in gynecological cancer development; Study of mitochondrial DNA mutations in gynecological cancers

#### *Reproduction*

Use of HRT in Hong Kong Chinese Women; Menopause and hormone replacement therapy; Effects of hormone on cognitive function and mood of Chinese women; Oestrogen and implantation; Intrauterine insemination and ovarian stimulation in the management of subfertility; Fertilization; Interaction between embryo/sperm and reproductive tract; Spermatogenesis and genes on Y chromosome; Regulation of oviduct specific glycoprotein; Mifepristone and misoprostol in fertility regulation.

## *Perinatology*

Hypothyroidism and iodine deficiency in pregnancy; Maternal lipid profile, Lipoproteins and glucose tolerance in pregnancy; Epidemiology of gestational diabetes mellitus in the Chinese; Nutritional and iron status and pregnancy outcome; Dietary manipulation in the treatment of diabetes in pregnancy; Predictors of preterm delivery; Feto-placental blood flow and placental development in normal and complicated pregnancies; Regulation of placental apoptosis on outcome of normal and complicated pregnancies; The role of IGF and IGF-BP in placental and fetal development.

## *Prenatal diagnosis*

Ultrasonographic assessment of pregnancies at risk of thalassaemia; Early intrauterine physiological changes of Bart's disease; Biochemical and ultrasound screening for fetal Down's syndrome.

### **Postgraduate Admissions Advisor**

Dr. William S.B. Yeung    Tel: 2855 3405    Fax: 2855 0947    E-mail: [wsbyeung@hkucc.hku.hk](mailto:wsbyeung@hkucc.hku.hk)

## Department of Orthopaedic Surgery

(<http://www.hku.hk/ortho/ortho/>)

### **Major Research Areas**

#### *Orthopaedic biomechanics*

Biomechanics of the lumbosacral spine; biomechanical analysis of lumbar interbody fusion; biomechanics of finger fracture fixations; tendon rehabilitation; biomechanical studies of flexor tendon injuries, new artificial finger joint design; spinal modelling; spinal implant development; asian total hip arthroplasty design & joint replacement surgery; bone remodelling after total hip replacement; shape memory alloy in spine surgery; biomechanics of sport injuries; human motion analysis, and cell biomechanics.

#### *Molecular and cell biology*

Experimental scoliosis and surgical treatment without fusion in primates; the role of the pineal gland in the causation of scoliosis; genetic mutations in degenerative lumbar disc disease. neurotrophism and neurotrophism in peripheral nerves; molecular basis of bone healing and fracture repair; gene mutations in degenerative disc disease; genetic profiles of bone tumours.

#### *Orthopaedic biomaterials and tissue engineering*

Bone and tendon tissue engineering; peripheral nerves and microarterial tissue Engineering and grafting; intervertebral disc tissue engineering and grafting; new total hip arthroplasty design & joint replacement surgery; bone remodelling after total hip replacement; shape memory alloy and bioactive bone cement in spine surgery; biomaterials of finger fracture fixations; tissue engineering in guided bone and skin regeneration; allograft docking and union properties; biomaterials for cell encapsulations and drug release.

#### *Orthopaedic neurophysiological*

Neurophysiological diagnosis of spinal disorder and spasticity in cerebral palsy; neurotrophism and neurotrophism in peripheral nerves; motor and sensory evoked potential during spinal surgery; spinal muscle EMG; functional electrical stimulation in spasticity and paralysis; EMG of low back pain; neurorehabilitation after spinal cord injury.

### **Departmental Requirements**

- 1 Written presentation of a literature review (at 3 months) and research proposal (at 6 months)
  - 2 Presentation of research seminars quarterly
- Publication of papers is strongly encouraged.

### **Postgraduate Admissions Advisor**

Dr. William Lu    Tel: 2819 9595    Fax: 2818 5210    E-mail: [wwlu@hkusua.hku.hk](mailto:wwlu@hkusua.hku.hk)



**Major Research Areas*****Childhood cancers and thalassaemia syndromes***

Cytogenetic and molecular diagnosis of leukaemia and solid tumor; Clinical and genetic studies on thalassaemia syndromes; In vitro study of traditional Chinese medicine on neurogenic tumours; Haematopoietic stem cells differentiation.

***Paediatric epidemiology and biostatistics***

Child health issues including growth, obesity, asthma and clinical trials.

***Growth and endocrine disorders***

Growth and follow-up studies in normal and small for gestational age babies; Nutrition, lipids and growth; Childhood diabetes and its complications; Long-term health consequences of growth impairment in early life.

***Paediatric cardiology***

Three-dimensional echocardiographic reconstruction for congenital heart disease; Clinical applications of dobutamine stress echocardiography in children; Assessment of diastolic function by colour tissue Doppler and acoustic quantification; Long-term outcome studies after corrective and palliative surgery for congenital heart disease; Clinical studies of interventional cardiac catheterization; Non-invasive assessment of arterial distensibility and vascular endothelial function; Ventriculo-arterial coupling in congenital and acquired heart disease.

***Human molecular genetics***

Molecular genetics of sexual differentiation disorders, neurodegenerative disorders, diabetes mellitus and growth disorders.

***Neural injuries and degeneration***

Molecular and cellular mechanisms involved in hypoxic-ischaemic and hyperbilirubinaemic neural injuries, and motor neuron degeneration and regeneration; with emphasis on studying differential gene expressions, and adopting genetic manipulations to explore and test novel therapeutic strategies for the stated disorders.

***Molecular developmental biology***

Characterization of genes involved in heart development and congenital heart defects; Role of epidermal growth factor in development by transgenic mice; Signal transduction pathways of RET receptor tyrosine kinase.

***Child neurology***

Neurophysiological evaluation of peripheral and central nervous system; Database on cerebral palsy, neurofibromatosis, tuberous sclerosis, neuromuscular diseases, attention deficit hyperactivity disorder and autistic spectrum disorders; Molecular genetic studies on various neurological disorders in Chinese; Neurophysiological studies on neurodevelopmental disorders; Comprehensive epilepsy programme including video-EEG monitoring and presurgical evaluation; Use of functional independence measure (WeeFIM) as outcome measure for neurorehabilitation; Integration of traditional Chinese medicine in neurorehabilitation (i.e. i) Tongue acupuncture, ii) Traditional Chinese & herbal medicine); NeuroHAbilitation Model; Functional neuroimaging study, MRI and PST scan for brain plasticity.

***Immunology***

Cord blood dendritic cell and T cell development; Mannose-binding lectin; SNPs and STRs in immunological and infectious diseases; Vaccines study disease; Epidemiology of allergic diseases.

***Cytokine biology and cancer virology***

1) Host response to virus infection - HIV and avian influenza viruses; 2) Biology of cytokine and interferon-signaling pathways and gene regulation; 3) Pathogenetic role of tumor viruses in cancer development.

## Departmental Requirements

Candidates may be required to sit a qualifying Examination before admission. There is a strong emphasis on publication and presentation of research findings.

## Postgraduate Admissions Advisor

Dr. P.T. Cheung Tel: 2855 4207 Fax: 2855 1523 E-mail: [ptcheung@hkucc.hku.hk](mailto:ptcheung@hkucc.hku.hk)

## Department of Pathology

(<http://www.hku.hk/patho>)

### Major Research Areas

#### *Molecular oncology*

Molecular genetics of cancers (oncogenes, tumour suppressor genes, DNA mismatch repair genes, cancer susceptibility genes, microsatellite instability, aberrant promoter methylation of cancer-related genes, etc.); cancer cytogenetics; analysis of cancer-associated gene expression profiles and cloning of differentially expressed genes; clinicopathological and prognostic factors; cell cycle regulation; angiogenesis; cytokines, growth factors and hormone receptor expression; pathogenetic and immune escape mechanisms in viral oncogenesis; gene therapy models; chemotherapy and radiotherapy induced cellular responses. The cancers studied include those of the blood, lymphoid organs, brain, breast, oesophagus, stomach, colon, liver, nasopharynx, lung, reproductive organs and urinary system.

#### *Forensic pathology studies*

Study of homicides in Hong Kong and comparisons with other countries; Rape attitudes and attrition studies; development of teaching aids in forensic training.

#### *Immunology*

Lymphocyte development and apoptosis; dendritic cell functions and immune regulation; the evolution of the immune system in primitive endothermic vertebrates; evaluation of cytokine production in cancer, autoimmunity and immunodeficiency.

#### *Molecular genetics*

Genotypic studies and phenotypic correlation of thalassaemia; molecular genetic basis of haematological disorders; molecular genetic studies on gestational trophoblastic disease.

#### *Nephrology*

Genetic, cell culture and animal model studies of adult polycystic kidney diseases; clinicopathological studies of glomerulopathies.

#### *Pathology of organ transplants*

Pathology of adult and paediatric transplantation of the liver, kidney, bone marrow.

#### *Reproduction*

Studies of cell cycle regulation in human placenta, MHC antigen expression in trophoblasts, and immunophenotype of placenta-infiltrating leukocytes.

#### *Clinical Biochemistry/ Chemical Pathology*

Lipid and endocrine disorders; heavy metals and trace elements in excess or deficiency states; therapeutic drug monitoring of the newer immunosuppressants in transplantation and anti-epileptic drugs; and herbal toxicology.

### Departmental Requirements

Presentation of research seminar at least once a year and before submission of thesis.

### Postgraduate Admissions Advisor

Dr. M. Wong Tel: 2855 4861 Fax: 2819 3859 E-mail: [mwpik@hkucc.hku.hk](mailto:mwpik@hkucc.hku.hk)

## Department of Pharmacology

(<http://www.hku.hk/pharma>)

### Major Research Areas

#### *Cellular signalling*

Study the modulatory effects of various Chinese medicinal compounds on kinases of the stress-activated pathway in ischaemia/reperfusion.

#### *Drug metabolism*

Metabolic bioactivation of xenobiotics; chemical scavenging of reactive metabolites and downregulation of cytochrome P450 expression by bacterial endotoxins.

#### *Gastrointestinal disorders and inflammation*

Study the mechanisms of cigarette smoking, alcohol drinking and nonsteroidal antiinflammatory drugs on ulcer formation and healing in the gastrointestinal tract and drug development for the management of gastroduodenal ulcers; investigate the interactive relationship between superoxide and nitric oxide in the pathogenesis of inflammatory diseases; investigation of the pathogenesis and therapeutic intervention of inflammatory bowel diseases and colorectal cancer; effects of sleep deprivation in gastrointestinal disorders.

#### *Toxicology*

Pharmacologic modulation of oxidant-induced tissue injury; antioxidant defence mechanisms in pathological states of oxidative stress; redox regulation of the expression of proinflammatory mediators by transcriptional factors; role of repair enzymes in DNA damage and cell death.

#### *Traditional Chinese medicine*

Isolation of the active ingredients from different Chinese herbs and study their anti-inflammatory actions for the treatment of gastrointestinal and hepatic disorders, such as gastritis, hepatitis and colitis; effect of Chinese medicine on the cardiovascular system antioxidant action of Chinese medicine such as ginseng and Gingko biloba extracts, and their productive effects against lipid peroxidation and restoration of normal vascular function; study the molecular pharmacology and biochemical mechanisms by which certain herbal medicines protect against vascular disorders; mechanistic studies of Chinese herbal medicines and green tea on gastrointestinal disorders, obesity, adjunctive chemotherapy, and osteoporosis.

#### *Vascular biology and lipoproteins*

Regulation of cardiovascular function by lipid mediators and steroid hormones; interaction of platelet-activating factor with other vasoactive agents on blood pressure and vascular contractility; mechanism of action of phospholipid metabolites in oxidized low density lipoprotein in impairment of vascular relaxation; effects of estrogen and other steroid sex hormones on vascular systems; define how specific elements of lipoproteins and homocysteine promote atherosclerosis and glomerulosclerosis.

### Departmental Requirements

Participation in journal club and presentation of research seminars at least once a year.

### Postgraduate Admissions Advisor

Professor R.Y.K. Man Tel: 2819 9250 Fax: 2817 0859 E-mail: [pharma@hkusua.hku.hk](mailto:pharma@hkusua.hku.hk)

### Major Research Areas

#### *Cardiovascular system*

Vascular smooth muscle and endothelium in normal and pathophysiological (hypertension, stroke, diabetes and shock) states; Neural and endocrine control of the cardiovascular functions in normal and pathophysiological states (ischemia hypertension and hypoxia etc.); Local control of blood flow to skeletal muscle - role of local metabolites; Relationship between nasal blood flow and nasal airway resistance; Relationship between the blood flow to the salivary gland and its secretion.

#### *Cell and Molecular Physiology*

Ca<sup>2+</sup> homeostasis and signal transduction; Binding properties, cloning, gene expression and signal transduction of neuropeptides, melatonin receptors and opioid receptors; Regulation of amyloidogenesis in transgenic mouse models of Alzheimer's Disease; Excitation-contraction coupling of airway smooth muscle.

#### *Chinese herbal medicine*

Pharmacology and therapeutic values of natural products derived from selected Chinese medicinal herbs.

#### *Endocrinology*

Adrenomedullin in ageing, diabetes, hypoxia and stress.

#### *Neuroscience*

Neural coding of spatial recognition: Development and plasticity; Neural regeneration after trauma; Plasticity of cardiovascular function following postural disequilibrium; Neuroprotection of dopamine neurons in Parkinson's Disease; Motor system in normal subjects and patients with motor disorders; Pineal gland and melatonin - roles in biological rhythm and reproductive functions; Neuroimmunomodulation.

#### *Nutrition*

Consequence of early nutrition on growth and development of the infant, and on the development of chronic degenerative disorders in the adult.

### Departmental Requirement

Presentation of at least one departmental seminar.

### Postgraduate Admissions Advisor

Professor T.M. Wong Tel: 2819 9260 Fax: 2855 9730 E-mail: [wongtakm@hkucc.hku.hk](mailto:wongtakm@hkucc.hku.hk)

## Department of Psychiatry

### Research Areas

#### *Molecular and clinical psychopharmacology*

The study of neurotransmitter receptors and their interactions with psychoactive compounds at the molecular level; the study of mechanism of actions of antidepressant and antipsychotic compounds at the clinical level.

*Contact Person* Professor S.W. Tang E-mail: [micatang@yahoo.com](mailto:micatang@yahoo.com)

#### *Behavioural genetics*

Application of current genetic concept, laboratory technology and biostatistics for the genetic study on human behavior; Association study design through population based case control and family based parental and sibling control; Linkage study in affected sib-pair design with special focus on quantitative trait loci analysis; Endophenotypes for gene mapping; Candidate

genes of neurotransmitter systems and neuronal growth factors for testing genetic predisposition to major mental disorders e.g. schizophrenia, depressive disorder, obsessive compulsive disorder, pathological gambling, drug and alcohol addiction, personality and behavioural patterns.

**Contact Person** Dr. Ronald Chen E-mail: [rylchen@hku.hk](mailto:rylchen@hku.hk)

***Clinical health psychology***

Psychosocial oncology; liver transplantation; youth's mental health problems, suicide, and early intervention; women's health; weight and eating problems; applications of cognitive behavioural therapy in psychiatric disorders including panic disorder, depression, anxiety disorders, and schizophrenia; development of pain assessment instruments; psychosocial impact of chronic illnesses including diabetes mellitus, thalassaemia major; early intervention and detection of dementia; applications of indigenous and western approaches in psychotherapy.

**Contact Person** Professor Peter Lee E-mail: [hrcmlwh@hku.hk](mailto:hrcmlwh@hku.hk)

***Psychotherapy and human sexuality***

Applicability and adaptation of psychotherapy and sex therapy in the Chinese and Hong Kong culture; Psychotherapeutic processes in the Chinese and their fitness into the statistical, mathematical or physical models; The sexual belief, attitudes, behavior and practices of the Chinese in different regions of China; Methods and effects of sex education and psychotherapy training.

**Contact Person** Professor M.L.Ng E-mail: [hrcmnl@hku.hk](mailto:hrcmnl@hku.hk)

***Cognitive neuropsychiatry***

This programme focuses on the study of abnormal psychology with the methods of cognitive science and neuropsychology. The aim is to provide descriptive and explanatory models to abnormal psychological processes. Current interests include: evolution of psychotic symptoms, illness awareness, executive function, attention impairments, motor system dysfunction, semantic memory impairments, characterization of neurocognitive impairments; Development of new assessment paradigms; Use of neurocognitive markers in prognostic and intervention prediction; Prospect of cognitive remediation; Neurocomputational modelling: the use of information technology and computer models in the study of thought processes and their disturbances.

**Contact Personas** Dr. E. Chen E-mail: [eyhchen@hku.hk](mailto:eyhchen@hku.hk)  
Dr. R. Chan E-mail: [rckchan@hkucc.hku.hk](mailto:rckchan@hkucc.hku.hk)

***Psychotic disorders studies and intervention (PSI) programme***

The PSI programme is an integrated programme for service, research and training in the area of early intervention for psychosis. Our major research areas are as follows.

Neurocognitive function: neurocognitive impairments; Definition of recovery pattern and factors affecting neurocognitive outcome; use of neurocognitive markers in prognostic and intervention prediction; prospect of cognitive remediation.

Psychopathology: natural history of symptoms and abnormal experiences, prodromal states; Experiential issues and knowledge of illness: subjective aspects of psychosis integration of illness experience, recovery, quality of life, recovery experience of care giving, stigmatization; Intervention: psychopharmacology of antipsychotics and other medications, cognitive and motor side effects, pharmacogenetics, development and prediction of treatment resistance; Suicide prevention; Psychoeducational group therapy.

**Contact Persons** Dr. E. Chen E-mail: [eyhchen@hku.hk](mailto:eyhchen@hku.hk)  
Dr. R. Chan E-mail: [rckchan@hkucc.hku.hk](mailto:rckchan@hkucc.hku.hk)

***Ethics and law***

The interface between law, ethics and medicine, especially within Psychiatry: topics include the capacity of patients to give consent to treatment, decision-making about maintenance treatment in psychotic patients, diagnosis disclosure in dementia, health care advance directives, genetic discrimination in schizophrenia. Another major area of research is on the methods and effects of medical education on ethical and legal aspects, professionalism and role modeling.

**Contact Person** Dr J. Wong E-mail: [jgws Wong@hku.hk](mailto:jgws Wong@hku.hk)

## *Women's health*

Understanding and promotion of women's physical and mental health through the integration of knowledge and research methodologies in health psychology and social medicine; Recognizes that women's health encompasses physical, psychological, and social well-being, and adopts a holistic approach to women's health that places it in its physical, psychological, social, and cultural contexts. Current research areas include the development of locally valid research and clinical instrument for assessing various areas of women's health; the study of premenstrual and menstrual distress among Chinese women; the psychocultural context of menopause; psychological intervention for patients with gynecological cancers; disordered eating and body image problems among pregnant women; the processes of decision making in obstetrics and gynecological setting; the interface between culture and health.

**Contact Person** Dr. A Lee E-mail: [amlee@hkucc.hku.hk](mailto:amlee@hkucc.hku.hk)

## *Brain imaging*

Magnetic resonance imaging (MRI) to study complex disorders of the brain involving mood, speech, cognition and behavioural systems. By analysing each and every brain voxel (3D 'pixel'), to explore potential multiple links to various psychiatric disorders eg. schizophrenia, autism and hyperactivity.

**Contact Persons** Dr. Siew Chua E-mail: [sechua@hkucc.hku.hk](mailto:sechua@hkucc.hku.hk)

Dr. Grainne McAlonan E-mail: [mcalonan@hkucc.hku.hk](mailto:mcalonan@hkucc.hku.hk)

## *Substance misuse assessment research*

The harmful effects like dependence potential and cognitive impairment of popular club drugs e.g. ecstasy, ketamine and methamphetamine etc; psychological risk factors for substance misuse; genetic predisposition of substance misuse; treatment protocol for drug dependence.

**Contact Person** Dr. Ronald Chen E-mail: [rylchen@hku.hk](mailto:rylchen@hku.hk)

## *Child psychiatry*

Executive functions and motivation in children and young adults with regard to school performance; language deficits and training of autistic children; psychophysiology of attentional and hyperactive disorder in childhood; family studies of children with psychiatric disorders.

**Contact Persons** Dr. T.P. Ho Tel: 2855 3095

Professor S.W. Tang E-mail: [micatang@yahoo.com](mailto:micatang@yahoo.com)

## *Sleep disorders*

Epidemiology, clinical presentation, etiology and treatment of major sleep disorders; measurement of sleepiness, sleep apnea.

**Contact Person** Dr. K.F. Chung E-mail: [kfchung@hku.hk](mailto:kfchung@hku.hk)

## *General psychiatric treatment and rehabilitation*

Public perception of mental illness; psychiatric stigma; electroconvulsive therapy.

**Contact Person** Dr. K.F. Chung E-mail: [kfchung@hku.hk](mailto:kfchung@hku.hk)

## **Postgraduate Admissions Advisor**

Professor Peter Lee E-mail: [hmrclwh@hku.hk](mailto:hmrclwh@hku.hk)

## Department of Surgery

(http://www.hku.hk/surgery/)

**Major Research Areas***Basic research*

Cancer genetics; Transplantation immunology; In situ gene transfer; Mechanism of immune tolerance induction; Developmental genetics; Molecular mechanism and signaling in neural development; Global gene expression profiling in human diseases by micro-array analysis; Molecular and cellular basis of inflammation; Macrophage function; Cell adhesion molecules; Leukocyte activation and migration; Bacterial endotoxin receptors and signaling.

**Contact Person** Dr. J. Luk Tel: 2819 9628 Fax: 2819 9634 E-mail: [jmluk@hkucc.hku.hk](mailto:jmluk@hkucc.hku.hk)

*Breast diseases*

Histoculture drug response assay; Induction of apoptosis by polysaccharide peptide (PSP) on breast cancers; Molecular mechanism of apoptotic action of PSP; Molecular of tumor invasion; Detection of micrometastasis in breast cancer by molecular approaches; Prognostic significance of micrometastasis in breast cancer; Study of acute phase response after operation; Study on wound healing and relation of healing with matrix metalloproteinases.

**Contact Person** Dr. L.W.C. Chow Tel: 2855 4773/4760 Fax: 2817-2291

*Cardiothoracic surgery*

Analysis of long term results of CABG in patients with diabetes mellitus; Multivariate analysis of mortality and morbidity in redo valvular replacement, multivalent off-pump coronary bypass surgery, infective endocarditis and aortic aneurysm surgery; Analysis of long term survival in congenital cardiac surgery such as Fontan operation, arterial switch operation and adolescent tetralogy of Fallot; Analysis of relationship between subarterial ventricular septal defect and aortic valve prolapse: to determine timing of surgical correction; Correlation of intraoperative cerebral blood flow doppler assessment and postoperative psychoneurological dysfunction.

**Contact Person** Dr. S.W. Chiu Tel: 2518 2639/2630 Fax: 25533436

*Colorectal cancer*

Total mesorectal excision of rectal cancer; Adjuvant radiotherapy and chemotherapy for Dukes' B2 and C tumor after curative resection (in collaboration with Department of Radiotherapy and Oncology; Queen Mary Hospital); Familial and hereditary colorectal cancer; Laparoscopic procedures for colorectal cancer; Surgery for recurrent cancer, Haemorrhoids; Anal physiology and adhesion.

**Contact Person** Dr. K.W. Chu Tel: 2855 4762/4763 Fax: 2872 8425

*Endocrine surgery*

Parathyroid autotransplantation: clinical and molecular studies; Risk group analysis in thyroid carcinoma; Oncogene expression in thyroid and endocrine tumors; Rapid PTH assay in parathyroid surgery; Ret-protooncogene expression in papillary carcinoma of thyroid; Genetic study of multiple endocrine neoplasia syndromes.

**Contact Person** Dr. C.Y. Lo Tel: 2855 4773 Fax: 2817 2291 E-mail: [cylo@hkucc.hku.hk](mailto:cylo@hkucc.hku.hk)

*Esophageal cancer*

Preoperative chemoradiation for treatment of esophageal cancer; Chemoradiation as definitive palliative treatment for esophageal cancer; Intraluminal brachytherapy for treatment of esophageal cancer; Metallic stenting for esophageal cancer; Thoracoscopic esophageal resection for esophageal and hypopharyngeal cancer; Minimal Access surgery for achalasia; Swallowing disorders: manometry; Gastroesophageal reflux disease in Chinese; Quality of life in patients with esophageal cancer; Endoscopic ultrasound in staging of esophageal cancer.

**Contact Person** Dr. S. Law Tel: 2855 4774 Fax: 2819 4221 E-mail: [slaw@hkucc.hku.hk](mailto:slaw@hkucc.hku.hk)

## *Gastroduodenal surgery*

*Clinical* - Foreign body ingestion; Ulcer disease and their complications (laparoscopic surgery, therapeutic endoscopy for bleeding; management of perforated ulcer; H. pylori); Reflux esophagitis; Gastrointestinal bleeding of obscure origin (small bowel enteroscopy); Gastric tumors (adenocarcinoma staging by endoscopic ultrasound and laparoscopy, regional intra-arterial chemotherapy); Lymphoma; Stromal tumors.

*Basic Science* - Ulcer disease (Growth factors, Ulcerogenesis); Gastric adenocarcinoma (molecular genetics, novel therapeutic approaches); Gastric stromal tumor (molecular genetics).

*Contact Person* Dr. K.M. Chu Tel: 2855 4637 Fax: 2819 4221 E-mail: [chukm@hkucc.hku.hk](mailto:chukm@hkucc.hku.hk)

## *Head and neck cancer*

Reconstructive options after major resections in head and neck region; Whole organ histological section to study patterns of tumor extension; Nutritional study for patients undergoing major head and neck surgery; Effects of radiotherapy on free tissue transferred with microvascular technique; Nasopharyngeal cancer, hearing problems.

*Contact Person* Professor W. Wei Tel: 2855 4237 Fax: 2818 4407

## *Hepatobiliary and pancreatic surgery*

Hepatocellular carcinoma: hepatocarcinogenesis and hepatitis B virus, angiogenesis, cryotherapy, randomised controlled trials including non-operative treatment, surgical techniques and adjuvant therapy after hepatic resection; Liver transplantation: animal model for small size liver transplant and artificial liver support, clinical application of living related liver transplant in adults; Biliary pancreatitis, acute cholangitis, intrahepatic stones, malignant biliary obstruction; Endoscopic and laparoscopic ultrasonography.

*Contact Person* Professor S.T. Fan Tel: 2855 4703 Fax: 2818 4407

## *Neurosurgery*

Event related evoked potentials in brain damaged patients; Pituitary tumor; Monitoring in head injury; Cerebral blood flow study; Clinical course and pathophysiology of vasospasm and hyperaemia after traumatic head injury; Measurement of cerebral blood flow velocity to define the physiological relationship between velocity and blood flow; Phase-contrast velocity MRI for flow dynamics of cerebrospinal fluid.

*Contact Person* Dr. Y.W. Fan Tel: 2855 3368/3773 Fax: 2818 4350

## *Otorhinolaryngology (E.N.T.)*

Acoustic rhinomanometry in children; Turbinectomy for hypertrophic inferior turbinate; Orbital decompression for thyrotoxicosis; Cochlea implant for children; Otoacoustic emission for screening of the high risk new born baby; Dizziness and balance problems.

*Contact Person* Professor W. Wei Tel: 2855 4237 Fax: 2818 4407

## *Paediatric surgery*

Developmental biology; Molecular genetics and pathology of Hirschsprung's disease and related neural crest disorders; Embryogenesis and fetal development of gut; Cellular mechanisms involved in VACTERL association, including esophageal atresia and duodenal atresia; Metabolic response of neonates to major surgery; Biliary atresia and choledochal cyst; Liver transplantation; Experimental small bowel transplantation; Intestinal ischaemia-reperfusion; Transplantation immunology; Childhood cancers; Dendritic cell biology in transplantation and anti-tumor therapy.

*Contact Person* Professor P.K.H. Tam Tel: 2855 4850/3536 Fax: 2817 3155 E-mail: [paultam@hkucc.hku.hk](mailto:paultam@hkucc.hku.hk)

## *Plastic and reconstructive surgery*

Effect of growth factors on wound healing after radiotherapy; Keloid and hypertrophic scars.

*Contact Person* Professor W. Wei Tel: 2855 4237 Fax: 2818 4407



### *Urology*

Molecular study of bladder cancer; Day surgery for ureteric stone; Surgical treatment of male infertility; Various treatment options for erectile dysfunction; Medical and surgical treatment of benign prostatic hyperplasia; Evaluation & treatment of prostatitis; Urethral sphincter physiology.

*Contact Person* Dr. K.M.T. Ho Tel: 2855 3032/3367 Fax: 2872 8425 E-mail: [kmtho@hkucc.hku.hk](mailto:kmtho@hkucc.hku.hk)

### *Vascular surgery*

Prospective study correlating demographic and biochemical risk factors and the severity and degree of progression and the long-term natural history of atherosclerosis in patients with peripheral arterial diseases; Study, using ultrasonography, of the prevalence and the risks of deep-vein thrombosis in the Chinese population; Computer-assisted carotid plaque morphology; Study the molecular basis and cellular signaling involved in the pathogenesis of abdominal aortic aneurysms; Expression of different cellular receptors and the modulators of extracellular matrix protein in human aneurismal aortic wall.

*Contact Person* Professor S.W.K. Cheng Tel: 2855 4962 Fax: 2855 4961

### **Departmental Requirements**

Students are required to (1) present at departmental research meetings and research laboratory meetings; (2) participate in weekly departmental research meeting and weekly research laboratory meeting.

### **Postgraduate Admissions Advisor**

Dr. John Luk Tel: 2855 3775 Fax: 2855 4784 E-mail: [jmluk@hkucc.hku.hk](mailto:jmluk@hkucc.hku.hk)



# Faculty of Science

MPhil and PhD Studies at The University of Hong Kong 2003-2004

The Faculty of Science boasts a long history of excellence in basic research and a team of outstanding scholars from around the world with a wide range of research expertise. In recent years, the Faculty has also placed increasing emphasis on, and achieved remarkable progress in, applied and strategic research.

The goal of the Faculty is to train the next generation of science and scientifically aware graduates, and through our teaching and research add significantly to scientific knowledge and practice.

The Faculty comprises seven departments, namely Botany, Chemistry, Earth Sciences, Ecology & Biodiversity, Mathematics, Physics and Zoology. A number of research centres, as well as affiliations with external organizations within Hong Kong and further abroad, have also been established. In addition, members of the Faculty have extensive research interactions with the Government and industry sectors.

Excellent research facilities exist within the Faculty with some of the best-equipped and modern research laboratories available within the region. Further, the University's library facilities are first-rate and compare admirably with leading international institutions.

The Faculty attracts a significant portion of the total research funds awarded to the University, this being from the RGC, CERG, RGC Co-operative Research Centres Scheme and the Innovation and Technology Fund. In addition to such research income, the Faculty has successfully won grants from the Industry Support Fund, as well as research contracts and funding from a variety of sources.

The Faculty currently has over 420 research students from more than 12 countries.

## Department of Botany

(<http://www.hku.hk/botany>)

### Major Research Areas

*In Situ* protease detection technologies; High-throughput single nucleotide polymorphisms (SNPs) discovery and detection technologies; Functional genomics via global protein tagging using ATP-Exon tapping; Application of double-stranded RNA as a novel strategy for viral resistance in animals.

Molecular biology of microbial dehalogenases, yeasts, acyl-CoA binding proteins in Arabidopsis; Cloning of plant metal-binding protein genes; Cloning of ethylene biosynthesis and receptor genes; Ethylene biosynthesis in ripening fruits; Plant signal transduction; Plant cell cytoskeleton; Microspore culture; In-situ hybridization; Production of transgenic plants; Expression of plant defense proteins in transgenic crops; Micropropagation of local orchids; Pesticide residues in vegetable crops; Post-harvest physiology and preservation of lychee; Agricultural development in Southern China; Wastewater treatment by aquatic plants, integrated bacterial-microalgal systems and by genetic engineering; Development of health foods; Genetic resources and nutritional properties of Amaranthus, wheat and yam; Wheat-based composite flours; Structure-function relation of food proteins; Chemical modifications of proteins from soymilk residues; Seaweed derived food polysaccharides; Starch and starch products in food processing; Rheology, viscosity and texture in food processing; Heat transfer in porous food materials; Ginseng processing by microwave techniques; Fermentation technology; Microalgal biotechnology; Plant cell and organ cultures; Separation and purifications of carotenoids by HPLC.

### Departmental Requirements

For MPhil Students: Participation and presentation in research seminars and/or guided study;

For PhD students: Participation and presentation of seminars; any other specific departmental requirement.

## Postgraduate Admissions Advisor

Dr. W.K. Yip Tel: 2299 0328 Fax: 2858 3477 E-mail: [wkyip@hkucc.hku.hk](mailto:wkyip@hkucc.hku.hk)

## Department of Chemistry

(<http://chem.hku.hk/>)

### Major Research Areas

#### *Analytical chemistry*

Atomic spectroscopy; Sample introduction methods for atomic sources; Automation in chemical analysis; Analytical techniques for environmental pollutants and food additives.

#### *Inorganic chemistry*

Inorganic and organometallic photochemistry including studies in microheterogeneous media; Asymmetric synthesis and organic oxidation using metal complexes; Structure and properties of high nuclearity metal clusters; Biomimetic models for nitrogen transfer reactions; Chemistry of lanthanides; Metal-alkylidyne and -alkylidene complexes; Supramolecular chemistry; Molecular recognition and chemosensing; Recognition and cleavage of DNA by metal complexes; Molecular metal-based materials with novel properties.

#### *Materials research*

Light emitting materials; Nanoparticles; Catalysts and materials for green oxidation.

#### *Organic chemistry*

Natural products and derivatives: structures, biological activities; Total and enantioselective synthesis; Production by plant tissue cultures; Biosynthetic investigations; Mechanism of actions of biologically active natural products; Fatty acids - synthesis, chemical, physical and biological properties; New synthetic methods; Ketone catalysed oxidation reactions; Design, synthesis and applications of peptidomimetics; Rational drug design.

#### *Polymer chemistry and synthesis*

Synthesis and characterization of polymers with potential applications in photonics, electronics, and organic transformations.

#### *Physical chemistry*

Molecular simulation - Monte Carlo and molecular dynamics calculations; Electrochemistry - scanning probe microscopy, fuel cells and sensors, advanced lithium battery, electroplating techniques; Molecular reaction kinetics and dynamics; Solution phase chemical dynamics; Theoretical investigation of electrical and optical properties of polymeric materials; Theoretical and computational biophysics including protein folding and charge transfer in biomolecules.

#### *Spectroscopy*

High resolution laser and IR spectroscopy of small molecules; Resonance raman spectroscopy; NMR - new pulse sequences employing magnetic field gradients.

#### *X-ray crystallography*

Structural chemistry.

### Departmental Requirements

For MPhil students: Participation and presentation in research seminars and/or guided study;

For PhD students: Participation and presentation of seminars; any other specific departmental requirement.

### Postgraduate Admissions Advisor

Dr. D.L. Phillips Tel: 2859 2160 Fax: 2857 1586 E-mail: [chemmail@hku.hk](mailto:chemmail@hku.hk)

## Department of Earth Sciences

(<http://www.hku.hk/earthsci/index.html>)

### Major Research Areas

#### *Geology of Asia/Pacific*

Tectonics; Structural geology; Petrology; Paleontology; Paleomagnetism.

#### *Evolution of oceanic and continental lithosphere*

Geology of ophiolite; Crustal history; Geochemistry; Volcanology; Micropalaeontology.

#### *Applied geosciences and environmental reconstruction*

Geophysics; Hydrogeology; Engineering geology; Quaternary Geology; Coastal management; Isotope geochronology; Natural hazards.

### Postgraduate Admissions Advisor

Dr. A. Aydin Tel: 2241 5474 Fax: 2517 6912 E-mail: [aaydin@hkucc.hku.hk](mailto:aaydin@hkucc.hku.hk)

## Department of Ecology & Biodiversity

(<http://www.hku.hk/ecology/>)

### Major Research Areas

Department staff use molecular and field-based approaches to research a wide variety of aspects of ecology and biodiversity from the gene to ecosystem level. Their work has a strong Asian focus, with particular emphasis on Hong Kong and southern China. Major research themes include: Molecular ecology; Systematics; Microbial diversity and ecology; Conservation biology and sustainable development; Marine biology; and, Environmental toxicology.

### Departmental Requirements

For MPhil Students: Participation and presentation in research seminars and guided study;

For PhD students: Participation and presentation of seminars; any other specific departmental requirements.

### Postgraduate Admissions Advisor

Dr. G.A. Williams Tel: 2299 0604 Fax: 2517 6082 E-mail: [gawilliams@ecology.hku.hk](mailto:gawilliams@ecology.hku.hk)

## Department of Mathematics

(<http://www.hku.hk/math/>)

### Major Research Areas

The research interests of the Department cover areas in pure and applied mathematics, such as commutative algebra, calculus of variations, combinatorics, control theory, differential equations, differential and integral inequalities, financial mathematics, functional analysis, algebraic geometry, complex geometry, differential geometry, graph theory, history of mathematics, mathematical modelling, matrix theory, number theory, operational research, scientific computing, and several complex variables. Over the decades numerous graduates of the Department have gone on to MPhil and PhD studies. Many have achieved distinguished careers and hold high academic positions in Hong Kong and overseas.

### Departmental Requirements

For MPhil Students: Participation and presentation in research seminars and/or guided study;

For PhD students: Participation and presentation of seminars; any other specific departmental requirement.

### Postgraduate Admissions Advisor

Professor M.K. Siu Tel: 2859 2250 Fax: 2559 2225 E-mail: [math@hkucc.hku.hk](mailto:math@hkucc.hku.hk)

## Department of Physics

(<http://www.physics.hku.hk/>)

### Major Research Areas

Surface science, the structure of surfaces, electron holography, theory of low-energy electron diffraction, photoelectron diffraction, high resolution electron energy loss spectroscopy, reflection high energy electron diffraction, scanning tunneling microscopy and atomic force microscopy, crystal growth by molecular beam epitaxy; Superconductivity (both theoretical and experimental); Transport properties in mesoscopic and nanoscopic systems; Properties of transition metal oxide systems; Geometric phase; Neural network; Quantum dissipation and quantum chaos systems; Semi-conductor and positron-semiconductor physics, positron beam technology; Superhard carbide coatings; Thin film technology of superconductors and semi-conductor samples; Photoconductivity, thermal activation, optical absorption and photoluminescence at low temperature to study the effect of ion implantation and annealing of deep donor levels in III - V semiconductors; Neutron star structure and evolution; Properties of strange stars; Gamma-ray burst, gamma-ray emission from Pulsars and glitches; Supernova observations; Electronic and optical properties of semiconductor nanostructures and device applications; Quantum information theories; Cellular automata; Environmental radioactivities; The history and philosophy of science, especially the role of science in society and the image of science in modern literature and drama.

### Departmental Requirements

For MPhil Students: Participation and presentation in research seminars and/or guided study;

For PhD students: Participation and presentation of seminars; any other specific departmental requirement.

### Postgraduate Admissions Advisor

Professor Z.D. Wang Tel: 2859 1961 Fax: 2559 9152 E-mail: [zwang@hkucc.hku.hk](mailto:zwang@hkucc.hku.hk)

## Department of Zoology

(<http://www.hku.hk/zoology>)

### Major Research Areas

#### *Biochemical genetics*

Isoenzyme biochemistry; chromosome sorting and karyotyping; DNA fingerprinting in herbal medicine identification; population biology of wild orchids.

#### *Cell biology*

Transmembrane and second messenger signaling; mammalian cell/tissue culture; insect cell line production; cell proliferation and apoptosis; chromosome mapping by fluorescence in situ hybridization; laser confocal microscopy and flow cytometry applications in cell biology and TCM screening.

#### *Endocrinology*

Hormonal control of nutrition, growth and cardioventilatory function; paracrine interaction in the testis; receptor tyrosine kinases; secretin peptide and its receptor; neural regulation of gonadotropin releasing hormone; growth hormone signal transduction.

#### *Environmental technology and marine pollution*

Livestock waste treatment technology; biology and biochemistry of redtide organisms and paralytic shell fish poisoning; nutrients and marine plankton blooms; DNA fingerprinting in environmental stress indication.

#### *Food and nutritional science*

Neurochemistry of appetite control; geriatric nutrition; obesity and weight management; human energy metabolism; nutritional status assessment; dietary fat and cancer interrelationship; diet and immunity; milk-borne growth promoting peptides; diet and nutrition in Hong Kong populations; meat quality and texture; developmental gastrointestinal physiology; toxins in sea food; soy sauce fermentation technology and flavour production.

## *Immunology and immunological techniques*

Novel complement proteins in man; chicken virus vaccine development; ELISA and DEFIA diagnostic assay development; monoclonal antibody production.

## *Molecular biology*

Cloning, sequencing and expression of genes for tyrosine kinase receptors, gonadotropin releasing hormone receptor, growth hormone releasing hormone receptor and secretin receptor; population Genetics and conservation biology; serodiagnosis of parasitic diseases; molecular immunology of parasitic worms; shrimp vitellogenesis inhibitory hormone; insertion of foreign genes into shrimp genome; direct protein sequencing and genetic engineering of androgenbinding protein; ophiobolin and calmodulin interaction; chicken and fish genomes DNA finger printing.

## *Parasitology*

Parasites in snails, fishes, pig and man; immunodiagnosis of helminth parasite.

## *Reproductive biology*

Specialized cell junctions in the testis; embryo biotechnology in mouse; protein purification and gene cloning of germ cell growth factors; male contraceptive design and delivery.

## *Scientific aquaculture*

Osmoregulation and reproduction of eel and marine fish; high-density fish culture using recycled water; reproduction in shrimp.

## *Transgenic biotechnology*

Transgenic mouse and transgenic fish as models for genetic engineering, transgenic chicken as bioreactor.

## **Departmental Requirements**

For MPhil Students: Satisfactory completion of courses; participation and presentation in research seminars and/or guided studies;

For PhD students: Participation and presentation of seminars; any other specific departmental requirement.

## **Postgraduate Admissions Advisor**

Professor W.M. Lee    Tel: 2299 0800    Fax: 2559 9114    E-mail: [hrs2lwm@hku.hk](mailto:hrs2lwm@hku.hk)



# Faculty of Social Sciences

MPhil and PhD Studies at The University of Hong Kong 2003-2004

Established in May 1967, the Faculty of Social Sciences currently consists of the following five core departments:

- Department of Politics and Public Administration
- Department of Psychology
- Department of Social Work and Social Administration
- Department of Sociology
- Department of Statistics and Actuarial Science

Apart from the core departments, there are five research centres which are established under the Faculty. They are Centre on Behavioral Health, Centre for Criminology, Centre for Suicide Research and Prevention, Sau Po Centre on Ageing and Social Sciences Research Centre. While the subject matter of these disciplines varies, they focus on the systematic examination of human behaviours, and therefore, contribute to the better understanding of the modern society.

In response to the changing social and economic environment, the Faculty aims at developing and strengthening its multi-disciplinary teaching and research, professional community service and socially relevant/policy research. Besides maintaining its leading role in the core disciplines, the Faculty has dedicated to the development of four multi-disciplinary concentrations, namely culture and media studies, global studies and international relations, social and public policy, and public health and safety. The core departments are also actively working with the research centres and overseas institutions on cross-disciplinary academic and research collaborations to strive for excellence in teaching and research. In conclusion, the Faculty as a whole continuously develops strength in teaching, research, community and professional services.

## Department of Politics and Public Administration

(<http://www.hku.hk/ppaweb/>)

### Major Research Areas

#### *Public administration and public policy*

The major research areas are: current issues in public sector management, including civil service reform; the transformation of public enterprises and privatization; the ethics of public servants; institutional analysis of public service delivery; and policy design.

#### *Comparative politics*

The main emphasis is on development politics, with particular reference to China and Hong Kong, and other Asian countries. The principal areas include: electoral behaviour in Hong Kong; municipal management in China; public personnel administration in China and Hong Kong; the role of women in China and the Third World; central-regional relationship in China with reference to Guangdong and Shanghai; and comparative Asian bureaucracies.

#### *International relations*

The primary focus is on international and regional politics in East Asia. The key areas are: international security in the Asia-Pacific region; the international political economy of East Asian development; human rights and foreign policy; the foreign relations of China; relations across the Taiwan Strait; and the international dimension of Hong Kong's development.

#### *Political theory*

The focus is on contemporary political theories, particularly those related to: liberalism, social justice, democracy, welfare rights, Marxism, and moral theories. The department also has expertise in Aristotle's political theory.

## Departmental Requirements

Students are required to participate in Departmental seminars and make seminar presentations.

## Postgraduate Admissions Advisor

Dr. I. Thynne Tel: 2859 2397 Fax: 2858 3550 E-mail: [thynne@hkucc.hku.hk](mailto:thynne@hkucc.hku.hk)

## Department of Psychology

(<http://www.hku.hk/psychodp/>)

### Major Research Areas

#### *Cognitive studies*

(A) Language and cognition: psycholinguistic and neurolinguistic investigation of language, including fMRI techniques, machine recognition of speech, eye movement, reading problems and subtypes of Chinese dyslexia, Chinese-English bilingualism, immigrant children's maintenance, loss, and re-learning of their heritage language, and linguistic relativity. (B) Development of concepts, including the development of intuitive biology. (C) Vision Research: (i) Computational and experimental investigation of the relationship between the statistics of natural images and human spatial vision processing, (ii) spatial localization and self-calibration by the human visual system, (iii) visual and vestibular interaction and adaptation in space and motion perception. (D) Psychophysiology and perception.

#### *Social cognition, applied social and organizational psychology*

Social cognitive processes underlying personality coherence and the effect of language on social cognition as well as intergroup perception, attitude formation, and interpersonal interaction; Indigenous social psychology and the study of the Chinese self; In applied aspects of social and organization psychology: the study of attitudes, beliefs, aptitudes and abilities of the work force and their relevance to human resources management in the Chinese context.

#### *Applied psychology*

In connection with the two professional psychology programmes in the Department, (A) in clinical psychology - neuropsychology, including substrates for emotions and effects of electromagnetic field and brain damage on attention; health psychology, including post-traumatic growth; (B) in educational psychology - literacy acquisition; motivation and social variables in connection with children's learning and behaviour problems; diagnosis and treatment of dyslexia; health education and the interface between family and school. Also, (C) application of constructivist methods to questions in applied psychology.

## Departmental Requirements

Applicants may be required to take a qualifying examination if they do not have a first degree in Psychology. All students are required to take a research methodology course as well as a course on Current Issues in Psychology during their first year.

## Postgraduate Admissions Advisor

Dr. S.F. Lam Tel: 2859 2388 Fax: 2858 3518 E-mail: [lamsf@hkusub.hku.hk](mailto:lamsf@hkusub.hku.hk)

## Department of Social Work and Social Administration

(<http://www.hku.hk/socwork/>)

### Major Research Areas

The research interests of the Department practically cover every aspect of social welfare and social work practice as revealed from the staff's expertise. The specialized fields of interest of the staff and for supervising research students are various covering both micro and macro practices. These basically include health and mental health, rehabilitation, family and child care, family therapy, children and youth services, juvenile delinquency, correctional services, ageing, community work, social welfare administration, social policy and human sexuality.



### Departmental Requirements

For PhD degree, the Student should present his/her proposed study to a panel of academic staff members for consultation and be able to produce publishable articles in refereed journals at the end of his/her study.

### Postgraduate Admissions Advisor

Professor I. Chi Tel: 2859 2079 Fax: 2858 7604 E-mail: [irischi@hku.hk](mailto:irischi@hku.hk)

## Department of Sociology

(<http://www.hku.hk/sociodep/>)

### Major Research Areas

#### *Globalization and regional studies*

The nature and impact of globalization, especially in the Asian region including studies in the areas like: Chinese society, Hong Kong society, overseas Chinese global network, the human dimensions of information technology, class, wealth and poverty, education and teaching.

#### *Culture and media studies*

Media, culture and life styles of the contemporary era including studies in the areas like: Hong Kong popular culture, life styles and the body, modern religious practices, mass tourism, marriage and the family, gender and sexuality.

#### *Social problems and policy studies*

The analysis of social problems, with particular emphasis on criminal justice including studies in the areas like: criminal behaviour, criminal justice, policing, corruption and computer crime, gender and crime.

### Postgraduate Admission Advisors

Dr. G. Evans Tel: 2859 2062 Fax: 2857 4074 E-mail: [socidept@hkucc.hku.hk](mailto:socidept@hkucc.hku.hk)

## Department of Statistics and Actuarial Science

(<http://www.hku.hk/statistics/>)

### Major Research Areas

#### *Statistics*

Time series analysis: financial time series, linear and nonlinear time series, time series with conditional heteroscedasticity, etc; chaos in a random environment; data analysis; data mining; econometrics; financial statistics; social statistics; multivariate analysis; robust methods; outliers and influential observations; distribution theory; asymptotic techniques; resampling methods; bootstrap methods; Monte Carlo methods; parametric, semiparametric and non-parametric modeling; goodness-of-fit test and model checking; confidence sets; sampling techniques; survival analysis with applications to clinical trials, biomedical studies; statistical genetics; DNA profiling; forensic statistics; tanking methods; capture-recapture studies; demography; Bayesian analysis; linear models, generalized linear models and generalized linear mixed models; and stochastic processes.

#### *Actuarial science*

Actuarial applications of financial economic theory; actuarial evidence in courts; actuarial mathematics; analysis of correlated aggregate claims in insurance business; asset allocation; analysis of heavy-tailed claims; credit risk; control and filtering of stochastic processes with applications to actuarial science; graduation methods for mortality data; insurance risk models; stochastic interest rate models; option pricing theory; retirement income arrangement; risk management; risk measure; risk theory; stochastic investment models; and value at risk.

### Postgraduate Admissions Advisor

Professor T.W.K. Fung Tel: 2859 2466 Fax: 2858 9041 E-mail: [ywcheung@hku.hk](mailto:ywcheung@hku.hk)

# Teaching Centres & Institutes

MPhil and PhD Studies at The University of Hong Kong 2003-2004

## Centre of Asian Studies

(<http://www.hku.hk/cas/>)

### Major Research Areas

Economic and business history of China, Hong Kong and Japan with special reference to studies of merchants, business corporations and economic culture; Chinese and Hong Kong history and politics; Chinese and Hong Kong economies; Finance, business, technology and telecommunications in China, Hong Kong and Southeast Asia; Education and language in China, Hong Kong and Southeast Asia; Archaeology of Hong Kong, South China and Southeast Asia; Chinese music.

### Postgraduate Admissions Advisor

Dr. Elizabeth Sinn Tel: 2859 2460 Fax: 2559 3185 E-mail: [casgen@hkucc.hku.hk](mailto:casgen@hkucc.hku.hk)

## Centre of Buddhist Studies

### Major Research Areas

#### *Chinese Buddhism*

History, doctrine, philosophy and literature; eight schools; textual study; impact of Buddhism on Chinese culture, philosophy, thought, religion, literature, arts and social customs; revival of Buddhism in contemporary China.

#### *The Vinaya in India and China*

The origin, formation and transformation of the monastic code in India; development of different dimensions of the Vinaya (namely, the Sravaka Pratimoksa, the Bodhisattva precepts, and the Pure Regulations) in China in response to cultural, political, geographical and social diversities.

#### *Theravada and Mahayana Buddhism*

Any aspect of doctrine, philosophy and history.

#### *Buddhism as applied to the social sciences perspective*

Counselling, palliative care, mediation and psychotherapy; Buddhist social philosophy; the value of Buddhist morality in modern time, modern interpretations of Buddhism.

### Centre Requirements

- 1 Presentation of seminars.
- 2 Specific language training is required when necessary.

### Postgraduate Admissions Advisor

Ven. Dr. Jing Yin Tel: 2859 2847 Fax: 2549 3040 E-mail: [buddhism@hku.hk](mailto:buddhism@hku.hk)

### Major Research Areas

Reading and listening comprehension; Writing; Discourse analysis; Genre analysis and pragmatics; Classroom research; Learner-centred curricula; Teaching English for specific purposes; Language testing; Language programme evaluation; Individual learner differences in second language acquisition; Psychology and language learning; Personality and language learning; Language education policies in Hong Kong; Sociology of academic disciplines; Discourse practices in academic disciplines; Language contact; Pidgin and creole languages; Indigenous varieties of English; Dictionaries; Autonomy in learning; Learners' knowledge and beliefs; Computers in language teaching and research.

### Centre Requirement

Presentation of a seminar before confirmation of candidature.

### Postgraduate Admissions Advisor

Dr. P. Benson Tel : 2964 5798 Fax: 2547 3409 E-mail: [pbenson@hkucc.hku.hk](mailto:pbenson@hkucc.hku.hk)

## Institute of Human Performance

### Research Areas

#### *Physiological*

Exercise physiology (including respiratory control; measurements of health, habitual activity and fitness in young and elderly populations; physiology of rowing; assessments of performance); pediatric exercise and sports science; physiological and medical aspects of children's response to exercise and physical inactivity.

#### *Psychological*

Implicit motor learning; anxiety and human performance; movement disorders and rehabilitation (esp. in Parkinson's disease and stroke); human performance in extreme environments; psychological skills training; peak performance; coach education.

#### *Management*

Management, planning and governance of sport and recreation service delivery organizations; relationship of volunteer and professional sports administrators; board performance in the nonprofit sector; volunteer development and management.

### Postgraduate Admissions Advisor

Dr. R. Masters Tel: 2817 9352 Fax: 2818 8042 E-mail: [mastersr@hku.hk](mailto:mastersr@hku.hk)

## Kadoorie Agricultural Research Centre

### Major Research Areas

Propagation and conservation of plant and animal genetic resources (chicken gene bank, cultured fish, moths); sustainable farming (use of organic and bio-fertilizers and integrated pest management); Management of water and soil resources (drainage basin hydrological cycle, hydrology of a soil pipe system, stabilization of slopes, soil erosion and flood control, stream ecology and community structure); Hill area development (biomass production and economics, hill fires and ecological succession); Forest ecology and urban trees (seed dispersal by birds and wild mammals, tree nursery for endemic and exotic species, shade-tolerance of common trees in Hong Kong); Waste management technology (treatment and recycling of livestock wastes, coal ash and sawdust compost as soil conditioners, vermicomposting, effluent-free intensive fish culture coupled to Hydroponics); Polyculture system for shellfish and shrimp; Soy sauce fermentation technology and flavour production.

## Postgraduate Admissions Advisor

Professor D.K.O. Chan Tel: 2859 2846/2488 5000 Fax: 2559 9114

## Institute of Molecular Biology

(<http://www.hku.hk/hkuimb/>)

### Major Research Areas

Research at the Institute is primarily to understand various biomedical phenomena and disease processes at the molecular level. Current research topics include identification of genes that cause cancer; birth defects; viral infections; diabetes mellitus; aetiology of diabetic cataract, retinopathy, nephropathy and neuropathy; functions of endothelin-1 in development, in the nervous systems, and in vascular system; the role of various growth factors in the development of the nervous system and in neuropathy; diagnosis and treatment of liver cancer. Techniques employed include recombinant DNA, cell culture and microinjection techniques, gene therapy, proteomics, transgenic mouse, and various biochemical and enzyme assays.

### Institute Requirement

Presentation of seminars. Publication of papers is strongly encouraged.

### Postgraduate Admissions Advisor

Professor H.K. Kung Tel: 2299 0750 Fax: 2817 1006

## Social Sciences Research Centre

(<http://www.ssrc.hku.hk>)

### Major Research Areas

Computerized survey data collection; Internet and World-Wide Web policy; Telephone survey methodology; Longitudinal surveys; Opinion and electoral polls; Bayesian statistics; Social and medical statistics; Privacy and data protection.

### Postgraduate Admissions Advisor

Dr. John Bacon-Shone Tel: 2859 2412 Fax: 2858 4327 E-mail : [johnbs@hkucc.hku.hk](mailto:johnbs@hkucc.hku.hk)

## The Swire Institute of Marine Science

(<http://www.hku.hk/ecology/swims/>)

### Major Research Areas

Coastal ecology, particularly of rocky shore organisms; Marine algae; Ecology of local corals and coral reef fish; Causes of coral declines, coral growth and borers; Mangrove ecology, especially at the Mai Po Marshes Nature Reserve; Coastal grasses and sea grass ecology and rehabilitation; Fish reproduction and behaviour; Hong Kong's horseshoe crabs, their biology and causes for disappearance from local beaches; Meiofauna; The effects of pollution upon intertidal organisms, especially scavenging gastropods; Trace metal effects upon the local biota and the identification of biomonitors; Physiological responses of mussels to heavy metal pollution; The effects of anti-fouling paints (TBT) on marine organisms and the development of imposex in predatory snails; Barnacles, isopods and crab ecology and the ecology of intertidal crevices and their fauna; Studies of the offshore benthos and the effects of dredging; Hong Kong's dolphins and porpoises: ecology, genetics, behaviour, sonic recording and causes for their declines; Coastal zone management; Identification of potential new marine parks and reserves; Artificial reefs and their roles inside and outside marine parks; Fisheries enhancement.

### Postgraduate Admissions Advisor

Professor Brian Morton Tel: 2299 0606/2809 2551 Fax: 2517 7997 E-mail: [swireml@hkucc.hku.hk](mailto:swireml@hkucc.hku.hk)

**Centre of Urban Planning and Environmental Management** (<http://www.hku.hk/cupem/>)

**Major Research Areas**

Planning and managing sustainable cities and regions; Urban and regional development in China with particular reference to the Pearl River Delta Region and Shanghai; Planning and management of urban transport systems with emphasis on sustainable transport systems; Housing policy and planning and the development of sustainable housing systems; Information technology applications in urban planning, including GIS; Environmental policy studies in Hong Kong and the Asia-Pacific Region; Ecological modernisation theory and processes; Sustainability assessment methods; Corporate environmental governance and business-environment issues; Planning sustainable communities; Globalization and urban development processes; Population and sustainability issues in Hong Kong.

**Centre Requirement**

Presentation of seminars.

**Postgraduate Admissions Advisor**

Professor Peter Hills Tel: 2859 2720 Fax: 2559 0468 E-mail: [phills@hkucc.hku.hk](mailto:phills@hkucc.hku.hk)



# Locations of Offices

MPhil and PhD Studies at The University of Hong Kong 2003-2004

	Location	Telephone No.	Fax No.
<b>Administrative Offices</b>			
Academic Services Enquiry Office	UG-05, Knowles Building	2859 2432 2859 2433	2858 5454
Finance and Enterprises Office	1st floor, Knowles Building	2859 2336	2858 8566
Graduate School	Room P403, Graduate House	2857 3470	2857 3543
<b>Faculty Offices</b>			
Architecture	8th floor, Knowles Building	2858 2149	2857 2852
Arts	Ground floor, Main Building	2859 2733	2548 5231
Business and Economics	7th floor, Meng Wah Complex	2241 5343	2549 3735
Dentistry	6th floor, Prince Philip Dental Hospital, Hospital Road, Sai Ying Pun	2859 0347	2517 0544
Education	Room 125, 1/F, Hui Oi Chow Building	2241 5728	2547 1924
Engineering	5th floor, Haking Wong Building	2859 2803	2546 9142
Law	4th floor, K.K. Leung Building	2859 2953	2559 5690
Medicine	6th floor, Academic and Administration Block, Faculty of Medicine Building, 21 Sassoon Road	2819 9214	2855 9742
Science	G12, Chong Yuet Ming Physics Building	2859 2681 2859 2683	2858 4620
Social Sciences	Room 104, 1st floor, Meng Wah Complex	2241 5539 2241 5370 2859 2980	2517 0806
<b>Teaching Centres and Institutes</b>			
Centre of Asian Studies	Tang Chi Ngong Building	2859 2465	2559 5884
Centre of Buddhist Studies	6th floor, Meng Wah Complex	2859 2847	2549 3040
English Centre	7th floor, K.K. Leung Building	2859 2004	2547 3409
Kadoorie Agricultural Research Centre	Lam Kam Road, Shek Kong, Yuen Long, N.T.	2488 5000	2488 5285
Social Sciences Research Centre	8th floor, Meng Wah Complex	2857 8333	2858 4327
Centre of Urban Planning and Environmental Management	8th floor, Knowles Building	2859 2721	2559 0468
Institute of Molecular Biology	8 Sassoon Road, Pokfulam	2816 8405	2817 1006
The Swire Institute of Marine Science	Shek O	2809 2179	2809 2197
<b>Student Services</b>			
Office of Student Affairs	4th floor, Meng Wah Complex	2859 2305	2546 0184

Further enquiries relating to research postgraduate programmes may be directed to

**The Graduate School**

Room P403, Graduate House  
The University of Hong Kong  
Pokfulam Road, Hong Kong

Tel: (852) 2857-3470

Fax: (852) 2857-3543

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As changes may have taken place since then, readers are advised to visit the Graduate School homepage for the most updated information.



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