Faculty of Medicine
The Chinese University of Hong Kong

PROGRAMME REVIEW
MB ChB
Main Report and Appendices

May 2009
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1. **Objectives of the MB ChB curriculum**

The Medicine (MB ChB) curriculum is an *integrated* curriculum taught by 19 academic departments and 2 units. The curriculum is five years at the end of which students obtain the degrees of MB ChB. This is followed by a year of compulsory internship of four subjects at designated clinical units in the Hospital Authority. Following certification by the Dean of Medicine of satisfactory performance during internship, graduates are given full registration with the Hong Kong Medical Council, i.e., a license to practice, without further examination. In the year 2008, we admitted 125 students into the first year. This intake will be increased to 160 in 2009 due to a change in government / UGC policy towards medical training in Hong Kong. There are a total of 235 full time academic staff and 2730 part-time Honorary teachers teaching the Medicine programme, excluding the 27 Research Professors, Research Associate/Assistant Professors who support the teaching in one way or another.

In contrast to many degree programmes in the University, MB ChB is a *general* degree WITHOUT further classification or division.

Medicine is also a programme almost entirely taught in English. All formal teaching, big class or small group, is conducted in English and English is the official language used in the public hospitals. However, inevitably, some Cantonese is used when teachers and students are faced with patients during clinical teaching.

There was a major overhaul of the medical curriculum in 2001, after which the overall objectives of the curriculum have been articulated as:

i. deliver effective and holistic care to patients;

ii. communicate effectively, compassionately and with respectful attitude to their patients;

iii. make decisions rationally and ethically when faced with conflicting choices in the management of patients;

iv. critically appraise available evidence so that they can apply the best treatment to patients; and

v. have the skills for life-long learning in order to equip themselves with the new knowledge required for the provision of the best possible care to patients.

The term Learning Outcome was not in use then and we used the term “objectives”. These broad objectives have served as the basis of our efforts in formulating a detailed set of learning outcomes for our students (see Section E - Student Learning Outcome).

These five objectives have been listed in the Student Handbooks since 2001. There is one handbook a year. Please see an example in Appendix A-1 (Year 1 Handbook on a CD).

The “objectives” are also listed in the medical curriculum website: [http://new-curriculum.med.cuhk.edu.hk/](http://new-curriculum.med.cuhk.edu.hk/)
2. **Overall view of the medical curriculum**

The structure of the curriculum is as Figure 1.

As our curriculum was historically heavily based professionally on the English model (and we were fully recognized for licensure without examination in UK until 2002), the present curriculum also follows current UK standard as laid down in their important document “Tomorrow’s Doctor” (URL: http://www.gmc-uk.org/education/undergraduate/undergraduate_policy/tomorrows_doctors.asp).

Currently in the UK, there is more variation in the medical curriculum in the different medical schools than previously and our curriculum is largely that of the integrated model of Cardiff, Newcastle or Edinburgh. In fact, a delegation of 10 professors made a study trip in 2000 to the medical schools in Cardiff and Newcastle, out of which the present curriculum was written.

The medical curriculum is not credit unit based. Every year has a curriculum which is about 80% prescribed overall except the final year, which is entirely prescribed. There are examinations in the middle of each year and at the end of the year and yearly promotion. Students failing in any examination have to take supplementary examination and failing a supplementary examination, have to repeat the whole year and not some of the courses only. This differs from other programmes at the University. Students must graduate within 7 years after entering the medical school. This is similar to the mode of operation of most UK medical schools. (See Appendix A-2 on Regulations governing undergraduate medical studies.)

We do not have a capstone stream like some other programmes as we are a general degree. However, gifted students with a talent for scientific research have the opportunity of in-depth study of one additional year in the Intercalated B Sc programme. Due to a variety of reasons, there have been very few students opting to do this extra year (at most several a year). There was in fact none in 2008.

Since our curriculum is long and students may change their mind or interest with time, we introduced the degree of B Sc (Medical Studies) for those students who do not want to go further after three years or afterwards. This was introduced in 2008 but so far there has been no taker.

3. **Curriculum Design**

The MB ChB curriculum is *integrated* and divided into the core and non-core components.

The core knowledge of the curriculum consists of different system panels (with the prefix P), and the clinical modules starting from year 3 for knowledge and clinical practice. This approach breaks down the traditional boundary of the basic medical sciences and reinforces the multi-disciplinary nature of medical care.
Figure 1: Overall View of Medical Curriculum

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<th>Year 3</th>
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<td>COSK, PCLM/CLMO, LLSK&lt;sup&gt;1&lt;/sup&gt;</td>
<td>- University &amp; College General Education; - General Education</td>
<td>- General Education</td>
<td>- General Education; - Medical Research SSM&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Community &amp; Family Medicine (CFM), Paediatrics (PED), Obstetrics &amp; Gynaecology (OBG), Psychiatry (PSY) modules</td>
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<td>- Language, IT &amp; Physical Education Courses; - Healthcare-related Database Analysis SSM&lt;sup&gt;2&lt;/sup&gt;; - Journal Paper Analysis SSM&lt;sup&gt;2&lt;/sup&gt;</td>
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<td>- General Education</td>
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<td>- Topical SSM&lt;sup&gt;2&lt;/sup&gt;</td>
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PCAR, PGIN, PHES, PHOM, PMUS<sup>1</sup>

PHUS<sup>3</sup> Junior Medical Clerkship & Junior Surgical Clerkship & Combined Clinical Exam

PFOS<sup>3</sup> PHAE, PMDT, PNEU; PREP<sup>3</sup> (Year 3 only)

First Prof Exam Second Prof Exam (Part I) Third Prof Exam (Part II) Third Prof Exam

<sup>1</sup> Skills Panels:
- CLMO - Clinical Modules
- COSK - Communication Skills
- LLSK - Life Long Learning Skill
- PCLM - Clinical Methods

<sup>2</sup> SSM: Selected Study Modules

<sup>3</sup> System Panels (P):
- PCAR - Cardiovascular-Respiratory
- PFOS - Foundation Studies
- PGIN - GI/Nutrition
- PHAE - Haematology, Infection and Immunity
- PHES - Health and Society
- PHOM - Homeostasis (Renal, Endocrinology and Metabolism)
- PHUS - Human Structure
- PMDT - Mechanisms of Disease and Therapeutic Approaches
- PMUS - Musculo-Skeletal
- PNEU - Neuroscience
- PREP - Reproduction, Sex, Human Development and Growth

One-Year Internship

- 3-months: General Medicine (GM)
- 3 months: General Surgery (GS)
- 3 more months of GM or Medical Subspecialty (PED, PSY, OBG)
- 3 more months of GS or Surgical Subspecialty (O&T or OBG)
In the terminology of medical education, we call this “horizontal integration”.

In addition, there is a core portion of skills. Clinical skill is introduced in the first year (not all medical schools in the world did that), and there are panels for life skills, communication skills and IT skills. Also, basic medical science is re-visited in the fifth year; radiology is taught in the first year and medical ethics in Years 1, 3, 4 and 5. We call this “vertical integration” and this fosters the longitudinal, cumulative nature of essential knowledge and skills in medicine.

The objectives of teaching of each panel in each year are clearly laid out in the Student Handbook (see examples provided in Appendix A-3).

Other than the core curriculum, there is a non-core curriculum making up more than 15% of total time, consisting of:

1. Selected Study Modules (SSM) in Years 1-3
2. The Elective at the end of Year 4
3. General Education, as per University regulation
4. Physical Education, as per University regulation

All non-core courses are selected by students, on the web. Year 1 SSM consists of several afternoons devoted to Human Structure and also a topic of diverse nature (see Appendix A-4 SSM topics in year 1). There is a poster presentation at the end of Year 1 SSM. Year 2 SSM consists of journal analysis and healthcare data analysis of several sessions’ duration. Year 3 SSM is a seven-week full time period for research, at the end of which there is a poster and oral presentation (see Appendix A-5).

At the end of fourth year, students go to 4-6 weeks of Elective to practically anywhere in the world they like (or Hong Kong which we discourage) to work in a medical unit or institution. Currently, about 85% of students go outside Hong Kong each year. (See Appendix A-6: List of Sites for Electives 2007-08 and an analysis of students’ feedback on Electives 2007-08.)

How the panels, modules and SSMs fulfill the objectives of the Medicine programme is listed in Table 1.
Table 1: How panels, modules and SSMs Fulfill the Learning Outcomes of the MB ChB Programme

| Course Code | Course Title                        | Prescribed / Self-select | (1) deliver effective and holistic care to patients | (2) communicate effectively, compassionately and with respectful attitude to their patients | (3) make decisions rationally and ethically when faced with conflicting choices in the management of patients | (4) critically appraise available evidence so that they can apply the best treatment to patients | (5) have the skills for lifelong learning in order to keep themselves up to date with new knowledge required for the provision of the best possible care to patients |
|-------------|------------------------------------|--------------------------|---------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Year 1      |                                    |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED1293     | Health & Society II prescribed     |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED1100     | Integrated Medical Sciences        | prescribed               |                                                   | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED1200     | Skills Modules                    | prescribed               |                                                   | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED1220     | Communication for Medical Students| prescribed               |                                                   | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| SSM1000     | Selected Study Modules             | self-select              |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| Year 2      |                                    |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED2293     | Health & Society prescribed        |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED2100     | Integrated Medical Sciences        | prescribed               |                                                   | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED2200     | Skills Modules                    | prescribed               |                                                   | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| SSM2000     | Selected Study Modules             | self-select              |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| Year 3      |                                    |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED3293     | Health & Society prescribed        |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED3100     | Integrated Medical Sciences        | prescribed               |                                                   | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED3200     | Skills Modules                    | prescribed               |                                                   | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED3110     | Junior Medical Clerkship           | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED3210     | Junior Surgical Clerkship          | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| SSM3000     | Selected Study Modules             | self-select              |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| Year 4      |                                    |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4010     | Community & Family Medicine        | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4110     | Obstetrics & Gynaecology           | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4210     | Paediatrics                        | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4310     | Psychiatry                          | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4200     | Skills Modules                    | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4410     | Elective                            | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED4510     | Combined Clinical Examination      | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| Year 5      |                                    |                          |                                                   |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED5110     | Senior Medical Clerkship           | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED5210     | Senior Surgical Clerkship          | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| MED5200     | Skills Modules                    | prescribed               |                                                   | ✅                                                                              | ✅                                                                              | ✅                                                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
4. **Sites of clinical teaching**

Clinical teaching is conducted at the Prince of Wales Hospital as well as many other hospitals in Hong Kong (see Appendix A-7). The senior doctors in these hospitals hold Honorary appointments with the Faculty in order to teach. Many, especially those at the Prince of Wales Hospital, play an active part in the curriculum planning and attend our Annual Curriculum Retreat (see Section H. 4).

Clinical teaching is also conducted at Family Medicine Unit (at Lek Yuen) of the Department of Health and a large number of private clinics for Family Medicine as well as the Hospital Authority Family Medicine Unit. The part-time teachers there also hold Honorary appointments with the Faculty.

About 50% of our Faculty professors are clinical, i.e., they have conjoint honorary appointment with the Prince of Wales Hospital and are expected to devote about 60% of their time to clinical service. This is a longstanding gentleman’s agreement between the government and the universities.

Our mode of operation is similar to all UK and Australian medical schools, in that the teaching hospital(s) belong to the "national" health (a socialist type) of health system and not the medical school.
The framework for the governance of the MBChB curriculum is provided in Appendix B-1. This diagram is also available at the curriculum website http://new-curriculum.med.cuhk.edu.hk/.

All System Panels are headed by a coordinator and supported by a part-time secretary. Membership in each panel is multidisciplinary and includes both basic science teachers and clinical teachers, thereby facilitating horizontal and vertical integration (see Appendix B-2: example of a panel structure). Clinical departments are responsible for their respective clerkships and liaise with relevant Chief of Services and Consultants (who are all Honorary Teachers) at the Prince of Wales Hospital and other institutions in which students undertake clerkships.

Panel coordinators must not be departmental chairs. Thus, the panel coordinator submits its teaching needs to relevant departmental chairs who are responsible for assigning teachers to a panel. Each panel regularly reviews its teaching quality, including the systematically collected student feedback (see Appendix B-3: example of two panels’ meeting minutes). Each panel organizes its formative and summative assessments under the supervision of the Year Committee.

Each Year Committee has a Year Coordinator, and is responsible for all academic and examination matters in the particular year of the medical programme, including liaising with the relevant External Examiners (in Years 1, 3, 4 and 5) (see Section G - Benchmarking). (See also Appendix B-4: example of year 1 and year 4 committee meeting minutes).

Overall management and monitoring of the curriculum rests with the Faculty Board. The Faculty Board by statute consists of all Department Chairpersons, Chair Professors and also teachers’ representatives and students’ representatives and is chaired by the Dean of Medicine. All examination results, major course and programme revisions and appointments of curriculum management personnel (e.g. panel coordinators, year coordinators) require endorsement by the Faculty Board.

Department chairs, in their Annual Reports to the University, also must address curriculum and teaching matters. The Faculty Board reviews and addresses all External Examiners’ reports related to the Professional Examinations as well as the responses to these external examiners’ comments by the relevant Departments before the reports are submitted to the Vice Chancellor.

A Curriculum Steering Committee advises the Faculty Board with regard to curriculum planning and development. All major academic personnel involved in the curriculum, in theory, are part of the Steering Committee (see Appendix B-5 for Curriculum Co-ordinators). Thus, due to the size of this Committee, various subgroups meet more regularly, e.g., year coordinators, clinical modules, ad hoc group for disabled students; these sub-committees formulate changes in response to feedback from the Faculty’s Monitoring and Evaluation Committee and/or from External Examiners. Ratings and written comments from student evaluations for all modules and panels are forwarded to the department chairs and Associate Dean (Education).

The one-year compulsory internship is overseen by the Central Internship Committee (CIC) of the Hospital Authority, in which the Dean and the Associate Dean (Clinical) are official members, although the Dean is currently represented by an Assistant Dean (Education). Monitoring of the
interns’ performance is the responsibility of the Faculty (undertaken by Office of Educational Services). Registration by the Medical Council of Hong Kong is contingent on the Dean of Faculty of Medicine attesting to an intern’s satisfactory performance.

Support for curriculum matters is provided by the Faculty Office (academic and student affairs), the Office of the Clinical Sciences Administration (support for teaching at the Prince of Wales Hospital and to a lesser extent related activities at other hospitals), and the Office of Educational Services (OES). The Medical Information Technology (MIT) unit maintains the curriculum website (http://new-curriculum.med.cuhk.edu.hk/), electronic timetabling and distribution of student groups, release of grades and setting up formative assessments on the web. It is also responsible for maintaining the website for staff to record their Teaching Portfolio (see Section J - Teaching Enhancement).
Learning Activities

Teaching and learning are essentially by lectures and small group teaching for the core curriculum. Appendix C-1 shows a table listing the different forms of teaching and learning methods in all the courses and modules. Appendix C-2 shows the proportion of time of lecture vs small group teaching when compared with the conventional medical curriculum of 2001. There are only several sessions of problem-based learning (PBL).

Integration is achieved that in each panel, teaching is conducted in a multi-disciplinary nature (see Appendix C-3: example of integrated panel teaching). Clinicians often teach in the "basic medical science" in years 1 and 2 and radiologists often teach in "anatomy" classes or the PHUS module.

Vertical integration is achieved in the following:

a. Panel teaching running through the first three years

b. Skills Panel teaching running through the first three years

c. Professionalism: For example, ethics teaching in years 1, 3, 4 and 5. There is more extensive ethics teaching in Year 5 (see Appendix C-4: example of ethics timetable) and also communication skills

d. Integrated session at final year when basic science is re-visited on Saturday morning sessions (Appendix C-5)

Clinical skills are taught in the junior years by dedicated teachers at the Kai Chong Tong Clinical Skills Learning Centre and further exposure is provided by regular clinical demonstration sessions. Clinical teaching in the third year onwards is entirely small group. Didactic teaching for Medicine and Surgery is almost finished by the end of the third year (except for a two-week course of Emergency Medicine) and students are attached to wards or teams from then onwards. They are expected to participate in regular clinical activities of the team and in Medicine and Surgery. Students are also strongly recommended to stay around on-call during the off-class sessions. A small number of students also have the opportunity to perform short periods (one week or so) of Assistant Internship (when the intern is on leave) at the teaching hospital.

In some clinical modules, a prescribed set of tasks are required to be fulfilled by the students. Appendix C-6 is an electronic logbook of the module of Obstetrics & Gynaecology (OBG).

While overall, students are encouraged to learn actively, inevitably there is a lot of passive learning in the core curriculum due to the limitations of a medical curriculum (see Section L - Reflection). However, active learning is the dominant mode for Selected Study Modules (SSM) (see Appendix I-2).

E-teaching and learning is provided as follows. With a robust student and staff interface, timetabling, logbooks, student grouping, laboratory notes, lecture power points are on the curriculum website. Formative assessment and all release of grades are web-based. We also have
a special formative learning tool using an e-environment, FACS (Formative Assessment Case Studies), which is used during the Orthopaedics, Surgery and Medicine (Cardiology) modules (see Appendix C-7). Anaesthesia and Orthopaedics are developing a virtual patient project and it was first used in the first term, 2008/2009 (see Appendix C-8). Department of Orthopaedics and Traumatology also develops self-studying CDs.

Although the e-timetabling does not appear very much, one must bear in mind that this is a rather complex programme involving a large number of teachers, multiple locations and over 650 students at its height. So this in itself is quite a formidable process.

The curriculum website also provides various features like WebCT, forum, teaching materials, etc. In fact, the curriculum web-site fulfills many facets of CUSIS currently being developed by ITSC.

Formative assessment is also a form of e-learning. We used to provide feedback to formative assessments and that was not really much used by students and due to technical reasons, we stopped providing that in 2007/2008.

Admittedly, opportunities to do research are somewhat limited in a crowded and largely prescribed curriculum like Medicine (see Section L - Reflection). Some SSM1 projects are research based. Year 2 SSM introduces basic research skills of biostatistics. In Year 3, there is a full time period of seven weeks for research. Many of these projects are quite outstanding and have resulted in prizes and awards (see Section A - Overall View of MB ChB Curriculum & Appendix C-9).

Some students take extra time to do research at a professor’s laboratory during their summer holidays.
1. **Types of Assessment Methods**

   Appendix D-1 lists the different types of assessment methods used in different panels and modules.

   a. **Formative assessments**: These are MCQs done on line in designated computer laboratories. The proportion of marks they account for is listed in Appendix D-2.

   b. **Continuous assessment**: They are usually laboratory reports and participation at skill-based workshops in system panels which account for a proportion of marks listed in Appendix D-2.

   c. **MCQs:**

   These form the mainstay of our high-stake examinations, i.e., the Summative Assessments of the panels, the year-end examinations and clinical module written examinations. They are mostly of 1 in 5 type (X-type). In the panel examinations, they are mono-discipline. In the year-end examinations, they are often integrated, and applied, i.e., a single applied or clinical scenario is followed by several questions contributed by different panels (see Appendix D-3).

   Extended matching type (R-type) MCQs are used in some Formative Assessments and Summative Assessments (see Appendix D-4 for the various types of questions, including R-type questions, used in Surgery Summative Examination 2007/2008.)

   As described below under Section G on Accreditation & Benchmarking, some modules make use of our IDEAL international item bank. In those examinations, it is possible to set an examination with "blueprinting" - stating the specific proportions of the examination questions which test recall or reasoning. (See Appendix D-5 to illustrate how to use "blueprinting" in selecting questions for an examination and the types of questions selected for year 5 Medicine and Surgery examination in 2007/2008.)

   d. **Short Answer Questions (SAQs):**

   These are used extensively throughout all our examinations and form the mainstay of our written examinations other than MCQs.

   The current thinking of medical education internationally is against long essay for examinations. In some North American medical schools, examinations are entirely by MCQs. We do not have long essays in assignments and examinations, and we are planning to introduce essay type of competition in 2009/2010.

   e. **OSCE**: Objective Structure Clinical Examination is extensively used in clinical examinations. Both real and surrogate patients are used. Other than conventional OSCE
stations, the latter may also contain data and imaging analysis and conduction of simple side-ward tests.

Clinical skills OSCE is in place since Years 1 and 2. This is one of the major differences from the conventional medical curriculum, say ours before 2001.

f. OSLER: OSLER is a type of continuous assessment for clinical students for history taking and physical examination when a student examines a "long case" under close scrutiny by a teacher (see Appendix D-6: example of an OSLER assessment form). It is used in the Medicine module before the final Professional Examination in year 5.

g. "Practical Examinations": These are modified practical examinations provided in some panels where students write SAQ type of examinations against images of laboratory situations or results.

h. Viva Examinations: Viva examinations are critical to the training of medical students as all examinations in their future careers have viva components, though it must be admitted that they are stressful situations for undergraduates. Viva examinations are held for the "pass/fail" and "distinction", or "medal" students for the year-end examinations in years 1, 3, 4 and 5. All clinical module examinations in years 3-5 have a face-to-face component.

Examination results are all announced on-line. Supplementary examinations are available to those who fail.

2. **Analysis of Examination Results**

   Grading of examination results is according to the University distribution of grades. However, normalization is done only AFTER a discrete pass / fail cut off has been made, and in the high stake examinations, those are always determined after a viva examination.

   Some panels do comprehensive analysis of examination results (see Appendix D-7 Analyses of a Panel’s Summative Assessment in 2008/2009). While simple data is always available, it is admitted that in-depth analysis is not carried out across panels.

3. **Feedback for examinations**

   Feedback is provided to students in some examinations, in a class session or by emails or other notices (see Appendix D-8 Feedback to year 3 students on a Panel’s Practical Examination). It is more difficult to give feedback for year-end examinations as some students leave town, for holiday, for overseas exchange, etc., very soon after examinations. As mentioned, we used to provide feedback for formative assessments.
The University Grants Committee (UGC) has recently recommended a Learning Outcome approach for all eight universities in Hong Kong.

1. As mentioned in the sections above, the medical curriculum underwent a major programme overhaul in 2001. These changes were initiated with reference to recommendations made by the General Medical Council, UK, in their report *Tomorrow’s Doctors*, 1993, and which identify the knowledge, skills, attitudes and behavior expected at the point of graduation.

The undergraduate curriculum is the first stage of medical education wherein the foundations for learning and practice as an intern are established. Graduates who have gone through this process must be aware of, and meet, the principles of professional practice i.e., the principles and values on which good medical practice is founded. The programme overhaul resulted in a major realignment of learning outcomes and objectives with clear statements as to

- What students will study and be assessed on during undergraduate education;
- And the minimum standards and assessments required to attain the award of a primary medical qualification

2. The Faculty acknowledges that in addition to knowledge, students must develop qualities that are appropriate to their future responsibilities to patients, colleagues and society in general. The Faculty therefore recognizes the importance and endorses the need for good general education, in alignment with the University’s (and UGC’s) global Outcome Based Approach (OBA) scheme, especially with regard to planning the 2012 curriculum.

3. The “Scottish Doctor” initiative was set out to establish a consensus about the learning outcomes for undergraduate medical education in the five Scottish medical schools, and to agree a common framework or cataloguing process. It enabled schools to demonstrate how they had responded to the General Medical Council’s recommendations. Our Faculty has recently adopted the Scottish Doctors framework, which has been released for wider assimilation through the Association for Medical Education in Europe (AMEE 1999) and has begun the process of compiling learning outcomes statements. The framework provides a mechanism to attach further information, which might include “where and how” learning outcomes are delivered in a curriculum, together with descriptors of resources, including materials that might be shared. It is also a mechanism for curriculum analysis and development enabling curriculum managers and developers to establish pathways for responding to changes in societal needs.

4. The framework provides a mechanism to align course objectives with broader (global) outcomes. Several clinical departments have prepared outcome statements that define the course and global outcomes expected at graduation, the methods of assessing them and the resources available for students to attain them.
5. Although the medical curriculum had a set of crude “objectives” when the curriculum was overhauled in 2001, in line with the more recent UGC OBA initiative, a Student Learning Outcomes (SLO) Taskforce for the medical curriculum was set up to oversee the development of detailed Learning Outcomes and has been assisting Panels, and Clinical Module leaders with the development of the key learning outcomes. In addition the taskforce has agreed on an “operational” reference, i.e., The Intern, so that teachers and planners have a pragmatic and practical reference point to set the bar for the knowledge and practical skills expected at graduation. Thus, with the “intern” as its target reference, the taskforce has been identifying the core competencies, knowledge and practical skills expected upon graduation. Outcomes are identified with each clinical module given that the educational interventions and learning opportunities are embedded within the clinical modules. Once the key clinical competencies and generic skills are identified and mapped to modules, the taskforce proposes to identify and link the relevant supporting educational interventions in the early years of the Medicine programme i.e., System Panels.

6. The SLO Taskforce has been working on a web-based platform, with the aim of providing students, teachers, curriculum planners and external reviewing bodies the following:
   - Key Learning Outcomes at Graduation
   - Outcomes Mapped to Clinical Modules and System Panels
   - Learning activities that support the development of the key outcomes
   - Where in the curriculum such learning activities might occur
   - How outcomes may be assessed for learning

   (see Appendix E-1 for the web interface)

7. The SLO Taskforce has reviewed and compiled outcome statements for some major clinical modules. The outcome statements are being reviewed by teachers in the faculty and by students. In addition they have also been presented to external reviewers (Hong Kong Medical Council Accreditation Team visit, November 2008). Some examples have been included in a companion CD along with this report.

   Examples included:
   a) Generic Learning Outcomes
   b) Learning Outcomes for Surgery
   c) Practical Procedures an intern is expected to be able to perform or assist in
   d) Outcomes for Plastic Surgery
   e) Outcomes for Anaesthesia & Intensive Care
   f) Outcomes in Orthopaedics & Traumatology
   g) Outcomes in Accident & Emergency Medicine

   (see Appendix E-2 for these examples on a CD)

   In preparation for the new secondary school system in 2012, we are further refining our student learning outcomes and Faculty package courses which also cover students of Nursing and Pharmacy. A preliminary draft paper has been made (see Appendix E-3).
In most medical schools in the world, there will be a period of internship which is followed by specialist training (Residency, Fellowship or Registrarship). In Hong Kong, by law, internship is one year and consists of four clinical specialties of three months each. It corresponds to the Postgraduate Year 1 (Foundation Year 1) of UK and in the United States, internship often doubles up as Residency training, but this is not allowed in Hong Kong.

Although internship is not part of the curriculum and interns have already had their degree and are legally employees of the Hospital Authority, this is still a period in which the Faculty shares responsibility. The interns possess a provisional medical licence from the Medical Council. As mentioned under Section A, the Dean has to attest to the satisfactory completion of internship.

Allocation of interns to the different hospitals and the recognition of different hospital units rests with the Central Internship Committee of the Hong Kong Hospital Authority (HA). The Office of Educational Services of Faculty of Medicine co-organizes pre-internship training programme with HA and throughout the entire Hong Kong in fact, and in-service training programme, "Practice Tips Workshops" for interns in the New Territories East Cluster Hospitals. (See Appendix F-1 for a programme of the 2007/2008 Pre-internship Programme Schedule and Practice Tips Workshops for NTEC Hospitals 2007/2008).
1. **Accreditation by Hong Kong Medical Council**

Since the Medicine programme is a professional degree, we have to be fully accredited by the Hong Kong Medical Council. The Hong Kong Medical Council carries out accreditation exercise every five years and those exercises involve inspection visits together with Hospital Authority senior management and overseas medical education experts. In fact, an accreditation visit was carried out in mid November, 2008. We understand from preliminary feedback that the panel is highly commendatory of our curriculum and criticisms and comments are relatively minor. However, the final report from them is still awaited. At that visit, other than senior Hospital Authority personnel, the overseas experts were Professor Peter Rubin from Nottingham University, UK and Professor Richard Reznick from University of Toronto.

Our degree was recognized by the UK Medical Council for full registration (i.e., licensure) without examination until 2002. The recognition was discontinued, partly as an ongoing policy of UK Medical Council and partly due to political reason, as UK medical degrees were by then no longer recognizable for registration without examination in Hong Kong.

2. **External Examiners**

In contrast to other programmes at the University, we have a relatively large number of External Examiners who visit *every year* for the year-end or professional examinations in Years 1, 3, 4 and 5. **Appendix G-1** lists the External Examiners and their home institutions for the year 2008/2009.

External Examiners actively participate in reviewing questions and examination scripts, grading and/or awarding of distinctions, prizes and medals. They are also specifically asked in their letters of appointment to give an opinion on the curriculum, teaching and learning as they have seen, albeit in a short visit.

At the end of the examinations, the External Examiners participate in the Panel of Examiners' meeting with the Dean of Medicine. They then have a private session with one of the Pro-Vice Chancellors, and have to submit a report to the University. (See **Appendix G-2** for examples of external examiners’ reports.) Their reports normally describe how they compare the standard of our students against their own students at home. Individual departments or year committees will have to formally discuss their views and formulate a response (see **Appendix G-3** for an example of responses to comments on external examiner’s report). Those responses are formally discussed in the Faculty Board before being forwarded to the University.

A robust External Examiner system serves as a powerful form of benchmarking and we have adopted the system for over 25 years from that of UK. From what we understand, in HKU,
External Examiners in medicine do not visit every year but we feel strongly about the usefulness of them visiting and inspecting every year.

3. **IDEAL**

This Faculty initiated the development of IDEAL (International Database for Enhanced Assessments and Learning) Consortium, for sharing medical students’ assessments (URL: [http://www.hkwebmed.org](http://www.hkwebmed.org)). It consists of 26 medical schools in 13 countries (see Appendix G-4 for a list of its members), all sharing their assessment items and related psychometric data. An attraction of the bank is that one can select items based on "blueprinting" readily (see Section D - Assessment under MCQ).

The Chair of the Consortium has always been at CUHK until the end of 2008 when it has moved to University of Alberta.

4. **Others**

A recent exercise conducted by the Department of Medicine and Therapeutics during its fifth year final Professional Examination in 2006/2007 and 2007/2008 (see Appendix G-5 benchmarking CUHK and other IDEAL Medical Schools). The overall performance of CUHK students meets or exceeds the performance of students in most other medical schools under IDEAL Consortium.
Quality assurance of the Medicine programme is achieved in the following manner:

1. **Student Evaluation**

   An example of student evaluation sheet is appended (see Appendix H-1). Our student evaluation system is called ACCESS and it has been developed before the University developed an overall student evaluation system, so the name has persisted.

   As our programme is not divided into conventional courses like other programmes at the University, evaluation is against a small set of lectures given by a teacher, a set of small group of teaching by a single teacher, etc., in addition to the whole panel. Also, student evaluation INCLUDES clinical teaching that occurs outside the Prince of Wales Hospital and that undertaken by "part-time", Honorary or Adjunct teachers of the Faculty.

   An example of actual evaluation scores of a clinical module is listed in Appendix H-2.

   In general, our student evaluation ratings are slightly lower than some programmes of the University. We think this is possibly due to two reasons: (1) The generally lower score in science subjects compared to the humanities, a universal phenomenon at CUHK, for a variety of reasons; (2) That all teaching is conducted in English; and (3) The inevitable workload and pressure medical students face.

   All evaluation ratings are sent to the department chairs and the Associate Dean (Education). The latter will initiate a discussion with the department chairs and the year co-ordinators for classes with low ratings (see Appendix H-3). Teachers with persistent low ratings are "advised" to take the teacher enhancement workshop conducted by CLEAR.

   Textual comments of a non-personal nature are also sent to the panel co-ordinators.

   Student evaluation ratings are always tabled at the meetings of the Faculty's Staff Review Committee for all personnel decisions concerning individual teachers (tenure, contract renewal, promotion) and the Associate Dean (Education) is always a member of this committee.

   Elective at the end of the fourth year, due to their special education value, has a different evaluation questionnaire (see Appendix H-4).
2. Monitoring and Evaluation Committee

The Associate Dean (Education) chairs this committee which holds thrice yearly dinner meetings between the class representatives of all years and the Dean, the Associate Dean (Education) and the Assistant Deans (Education) (previously also including the Professor of Medical Education who retired recently). The minutes of the most recent meeting are included (see Appendix H-5). These series of dinner meetings have been held without disruption since the medical curriculum was changed in 2001 and served as the most important means of two-way communication between faculty and students. Since the class representatives do not change a lot over the years, a good deal of friendship and frank exchange has developed between the Deanery and the students and we can confirm that this is a most effective means of soliciting opinions from students.

Not all the students' wishes or recommendations can be met every time we meet but the Associate and Assistant Deans (Education) do make an attempt to handle all their comments as quickly as possible (see Appendix H-6).

3. Evaluation of Interns

We are fortunate in that ALL our graduates become, at least for one year, employees of the Hospital Authority. The Chiefs of Services (COSs) of various units in the hospitals have been using a standard questionnaire for over 13 years to evaluate interns. The questionnaire assesses 11 attributes which correspond quite well to our "objectives" or "learning outcomes" (see Appendix H-7). So there has been an archive of consistent data to compare with. We are extremely encouraged that the data so far shows a high degree of satisfaction with the performance of our graduates by the COSs and the graduates of the "new" curriculum compare very well with those of the "old" curriculum. In fact, there has been a steady rise in the rating by the COSs for our interns in recent years (see Appendix H-8).

The textual comments by the COSs on our graduates (actually not often given by busy COSs) are extremely encouraging (see Appendix H-9).

4. Annual Curriculum Retreat

Every year since 2000, the programme has had an Annual Curriculum Retreat in which all full-time teachers and adjunct teachers were invited to participate. Please note this is no mean feat due to the large number of personnel involved. The total number of participating teachers was 119 in 2007 and 138 in 2008.

A diverse number of issues is discussed in each Retreat (see Appendix H-10 on agendas of 2007 and 2008 Curriculum Retreat). The Retreats also serve as a useful means for updates as communication and ownership of curriculum are always a potential problem in a programme involving such a large number of personnel.
Issues raised by teachers at Curriculum Retreats are taken back to individual panel committees and year committees or clinical modules for follow up.

5. **Monitoring by the Society**

Inadequate doctors are sanctioned by the society by various means. In the public hospitals, there is a single electronic platform (same for all 46 public hospitals) of incident reporting (called AIRS) and inevitably, some of these AIRS incidents concern our interns. With the graduation of our first cohort from the "new" curriculum, there has been a 48% reduction in AIRS incidents involving our interns in the year 2006/2007.

Incidents, especially minor and inconsequential ones, are almost impossible to eradicate in large hospitals. Interns involved in major incidents or facing serious psychological problems have to be counseled by the Associate Dean (Clinical) and an Assistant Dean (Education) (previously Professor of Medical Education). We have kept a close watch on the figures (see Table 2 below).

Table 2: Percentages of Various Interns' Problems Counseled by Faculty of Medicine

<table>
<thead>
<tr>
<th>Type of Problem</th>
<th>Percentage*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Personal problem: psychological</td>
<td>0% 100% 17% 25% 33% 33%</td>
</tr>
<tr>
<td>2. Assessment report related problem</td>
<td>0% 0% 50% 0% 0% 33%</td>
</tr>
<tr>
<td>3. Professional problem: medical incident</td>
<td>33% 50% 0% 75% 67% 33%</td>
</tr>
<tr>
<td>4. Professional problem: non-medical incident</td>
<td>67% 0% 100% 50% 100% 67%</td>
</tr>
<tr>
<td>Number of intern counselled</td>
<td>3 2 6 4 3 3</td>
</tr>
</tbody>
</table>

* An intern can have multiple problems ranging from 1. to 4. above.

We have also requested the Hong Kong Medical Council to give us the data of CUHK graduates who have been sanctioned by the Hong Kong Medical Council. This is public data but requires a bit of organization by the latter. Naturally, the longer time the doctor has graduated, the lesser the effect of the primary medical education on his professionalism. At the time of this report, the Hong Kong Medical Council has not finished compiling the data for us.

6. **Graduate Survey**

An MBChB Graduate Questionnaire has been designed and is conducted with collaboration with CLEAR to collect feedbacks on individual items listed in our teaching objectives as stated under Section A. For each cohort of graduates, feedbacks are collected 6 months and 18 months after their graduation, when they are working as interns and junior doctors, respectively.

The survey appears to have given us the following results compared with graduates of the "old" curriculum:
i. There have been significant improvements in teaching and learning than the traditional one, in terms of reducing amount of factual knowledge which is non-essential, better performance in patient management and practical procedures.

ii. There are continuous improvements in patient management, health promotion and disease prevention, and critical and creative thinking.

Written comments reflected that the medical graduates appreciate the ample clinical exposure and good teaching in this integrated curriculum. They perceived that they have acquired capabilities that are needed for a competent medical doctor. (See Appendix H-11 on a report of the graduate survey.)

Results of the data part of these surveys have been put on the curriculum website for students and staff and will be discussed in the upcoming Curriculum Retreat.

7. **Student Engagement Questionnaire (SEQ)**

SEQ is an annual questionnaire conducted by the CLEAR office of the University on behalf of all undergraduate programmes, evaluating the general attributes of a university education. Colleagues from the CLEAR office discuss with some of the key curriculum co-ordinators every year the survey results.

While it is not so easy to compare our programme with other programmes at the University due to differences in programme objectives and structure, the surveys do provide us historical data to compare between the "new" and "old" curricula. Appendix H-12 shows that in terms of general attributes, the "new" curriculum compares very favorably against the "old" curriculum.

Results of the data part of these surveys have also been put on the curriculum website for reference by students and staff.

8. **Comparing Examination Results of Old and New Curricula**

A double-blind trial was conducted using common items comparing the examination results of students of the old and new curricula. Again, the results speak favorably of students of the “new” curriculum. (See Appendix H-13.)

9. **Benchmarking**

Benchmarking is a form of quality assurance and is not being repeated here. Please see Section G on Accreditation and Benchmarking.
Section I. What, Why and Why Not of Changes Arising from Feedback

The essence of the Aligned Curriculum framework of CUHK is that curriculum planning and implementation are modulated by feedbacks from various sources and interact with an evolving set of learning outcomes. In addition, in medical education, probably more than other programmes, we pay attention to trends unfolding in the field of medical education and requirements of the major stakeholders (see Section L - Reflection).

The main curriculum change in 2001 was evidence-based, arising from a detailed questionnaire the Faculty then conducted among its alumni. Details of this survey can be made available on request and are not being included in this document as it was some years ago already. And it must be realized that due to the length of our programme plus internship, we are only seeing and analyzing the results of the “new” curriculum recently.

The aims of the curriculum change then were to: (1) reduce congestion and avoid overlap; (2) emphasize skills and professional aspects; (3) introduce early clinical contact; (4) introduce a more selective, non-core portion into the curriculum; and (5) an integrated approach to the curriculum. The “objectives” of the curriculum (Section A. 1) amply reflect these aims.

We believe there have been major reductions in the number of lecture hours when compared to the “old” curriculum in 2001 (see Appendix C-2).

In spite of what some medical educators believed to be the “in” thing in medical education at that time of our curriculum reform in 2001, the Faculty decided against using a Problem Based (PBL) mode of teaching. That decision was taken after extensive soul-searching discussion among the leading professors. We believe that mode of learning, which may be natural for the postgraduate medical cohorts in North America (or some UK or Australian schools), is unsuitable for an essentially undergraduate group like ours. We believe students should in fact view every encounter in the ward or out-patient clinic as a "problem"-based encounter. We are pleased to note that the balance has been redressed internationally and currently, only a few of UK medical schools are running a full blood PBL programme.

The main stakeholders we interact closely with constantly are the students, the teachers, the University / UGC, the Hong Kong Medical Council, the Hospital Authority and Prince of Wales Hospital, the main teaching hospital.

1. Changes Arising as a Result of Interaction with Hong Kong Medical Council

In the 2003 accreditation visit by the Hong Kong Medical Education, they made two major comments: (1) We have to monitor the renewals of SSMs; and (2) Some panels are not as truly integrated as we might like to think.

Since then, we have made mandatory renewals of a proportion of SSM a requirement for our SSM Committee (see Appendix I-1). We have made a huge attempt to make some panels, e.g., PFOS, PHUS, which were not so integrated in the past, truly multidisciplinary teaching.
Although not included in the accreditation report of 2003 for our medical school, Hong Kong Medical Council has expressed through various informal channels the inadequacy of family medicine teaching. We realize that part of the inadequacy is structural: that Hong Kong’s family medicine, in contrast to hospital medicine, is mostly private. There is a lack of suitable teachers and outside clinics for teaching. We made strenuous efforts to improve family medicine exposure for our students. We were able to increase the number of full time teachers in family medicine (five full time teachers), the number of clinical sessions and we are also using the Family Medicine Units at the Department of Health (at Lek Yuen) and the Hospital Authority at the Prince of Wales Hospital for teaching. The facilities for teaching in these sites were also upgraded and now include CCTV monitoring of patient interviews.

Although the report of the 2008 accreditation visit is still being awaited, preliminary feedback of the visiting panel is highly commendatory of our efforts in Family Medicine teaching, in spite of the restrictions.

2. **Changes Arising as a Result of Feedback from Students and Teachers**

The following are recent *examples* of curriculum changes as a result of student feedback and careful discussion among students, professors and aligning with our education goals. They are only examples as minor ones are too numerous to elaborate here:

a. The programme of the fifth year is extended by one month and that of the fourth year shortened accordingly, to relieve congestion in the fifth year.

b. The fourth year SSMs were removed beginning 2008/2009 as they did not appear to have achieved the educational objectives desired.

c. A consolidated Emergency Medicine programme of two weeks was introduced as a response to consolidate teaching in this area by Anaesthesia, Medicine and Surgery.

d. The examination method has been considerably modified since the first cohort of admission of 2001 underwent the entire curriculum. Other than clinical examination, written examinations were 100% 1 in 5 type of MCQs. Many SAQ examinations have been introduced in response to students and faculty criticisms (see Section D - Assessments). In clinical examinations, long cases were replaced by OSCE and OSLER.

e. The teaching of anatomy in the panel PHUS was consolidated after student feedback and discussion with the class representatives.

f. More ethics teaching is offered as a response to students’ request (see Appendix C-4).

g. Consolidation of lectures in Medicine and Surgery in year 3 and in year 5 beginning 2009/2010.
3. **Changes arising from interaction with the University / UGC**

   a. As a result of the UGC directive of an outcome based approach, we are in the process of aligning our present curriculum and assessments, module by module, along detailed sets of learning outcomes and using the Scottish Doctors as a framework (see Section E - Learning Outcomes). This process is on-going.

   b. With the impending change in 2012 of the secondary school curriculum, the Medicine programme will be extended for 1 year. The new first year will consist of a big component of general education and language unit. We are in the middle of drawing up a new first year curriculum with a new set of learning outcomes for the faculty packages (see Appendix E-3). We welcome the opportunity of the faculty package courses because it allows us the opportunity of "inter-professional education" which is much promoted in current concepts of medical education. In spite of what the University or UGC would like to see, the newly introduced units of general education and faculty package courses will likely involve the first two years, in fact mostly the first year.

4. **Changes arising as a result of interaction with the Prince of Wales Hospital**

   The majority of our graduates perform their internship and residency training after graduation at the Prince of Wales Hospital or its associated hospitals at the New Territories East. The hospital administration is extremely keen to develop a common internship training strategy with the Faculty and imbibe in our graduates the very important concept of patient safety and risk management. The Faculty fully supports such co-operation.

   a. After the final Professional Examination, students are inducted to a White Coat Ceremony (see Appendix I-3). On this occasion, students are given clear instructions on patient safety and risk management by senior Hospital Authority administrators.

   b. A previous pre-internship programme of the Faculty has been revamped and is now given together with senior doctors of the teaching hospital (see Appendix F-1).

   c. An essay competition on patient safety will be introduced in the summer of 2009.

5. **Changes as a result of interaction with External Examiners**

   These are actually too numerous to document. Below are just some examples:

   a. Strengthening of virology lectures.
b. That a larger proportion of borderline students should have viva examinations.

c. Inclusion of lectures of reference levels, sensitivity, specificity in medical testing.

d. Inclusion of some teaching of alternative medicine.

e. The use of Short Answer Questions (SAQ) in professional examinations.

f. The use of R-type questions in formative assessments.

There are many other examples.
Enhancement at teaching is promoted by several means:

1. New teaching staff at or below the rank of Assistant Professors are to take a Professional Development Course (PDC) with a course design encompassing assessment, offered by CLEAR. The Personnel Office of CUHK, after being informed by CLEAR when this teacher completes the PDC, proceeds to follow up on matters relating to that individual’s employment contract. New teachers above the rank of Assistant Professors are also encouraged to take the PDC.

2. The Faculty organizes Orientation Session for new teachers every 6-9 months so that new teachers can be acquainted with the purpose and organizations of the rather complex medical curriculum (see Appendix J-1).

3. The Office of Educational Services (OES), organizes on behalf of the IDEAL Consortium, numerous workshops on teaching enhancement. Many of our own teachers participate in these workshops (see Appendix J-2).

4. The Faculty is the permanent Secretariat of the Association of Medical Education of China, Taiwan and Hong Kong (http://www.mea.org.hk) which consists of 40 major medical schools in China and Taiwan, too. There is an annual meeting in which more than 20 teachers attend usually. We host the conference every few years, the last one being 2005 (see Appendix J-3). We also hosted a mid-year Medical Education Workshop for the Association in April 2009, with the participation of about 50 medical educationalists representing the member medical schools. Many of our teachers participated in the Workshop (see Appendix J-4).

5. The Annual Curriculum Retreat, other than giving an opportunity for everybody to discuss curriculum issues, sometimes also carries a “workshop” component to enhance teaching. Appendix J-5 gives an example of a workshop of MCQ conducted during the Retreat in 2005.

6. Occasional seminars given by international experts (see Appendix J-6: Lectures hosted by “Curriculum Centre”).

7. Sharing Best Practice

To promote good teaching, the Faculty elects Teachers of the Year Awards for many years (in addition to the Vice Chancellor Award for teaching). Teachers are elected based on a combination of student voting, evaluation scores and critical evaluation of contribution to medical education (see Appendix J-7 for the criteria of selection).

The comments by the students towards these best teachers are publicized as a flyer (see Appendix J-8). These teachers are also invited to share their good practices with the Faculty at large during the Faculty Curriculum Retreat (see Appendix H-10).
8. Teaching Portfolio

We have developed a teaching portfolio for teachers to record their teaching activities and plan their development (see Appendix J-9).

9. Teaching and Learning Resource Centre. Out of a large UGC teaching development grant, the Faculty has developed this centre at Block B of the Prince of Wales Hospital and it is dedicated to teacher enhancement. Numerous workshops have already been conducted there (see Appendix J-10). Currently, an Assistant Dean (Education) is the Director of the Centre.

10. Some teachers are actively engaged in medical education research and publications (see Appendix J-11 Teaching Development Grants & Medical Education Publications).

11. Teachers participate actively internationally in medical education affairs. The Associate Dean (Education) is a Council Member of the Association of Medical Education (ASME) (UK) and the Professor of Medical Education (recently retired) is a member of the Society of Directors of Research in Medical Education (SDRME) and past Chair of the IDEAL Consortium.

There is a Faculty representation at the AMEE Conference, the largest international medical education conference every year and some faculty members also attend the Ottawa conference annually. Our faculty has organized, on behalf of IDEAL and provided the leading role for international workshops (Adelaide, Vancouver, Muscat, Al Ain, Bandung, Riyadh, Khartoum).
Other than the student development and counseling services provided by the Office of Student Affairs and Colleges, our faculty also offers support for students, on both academic matters and non-academic matters, under the advice of Associate Dean (Education) and Associate Dean (Student Affairs). Counseling and assistance are provided to students in need via a route posted on the Faculty’s website (see Appendix K-1 for Support Services for Students).

The Faculty runs a voluntary mentorship scheme in which, presently, 508 students of all five years and 49 teachers and honorary teachers participate. Each group consists of mentees (junior students), mentors (senior students) and super-mentors (teachers). In addition, an EAS Adviser and two Assistant Deans (Student Affairs), one of them being a Professor in Psychiatry, are available to counsel these younger students.

Students whenever they approach the Faculty for help, are always encouraged to seek professional assistance also from the University Health Service, in which several doctors with psychiatric training are available, and the counseling unit of the Office of Student Affairs. In psychiatric emergencies, the Department of Psychiatry in the Faculty is always willing to assist but due to the health care provision model in Hong Kong, that can only be provided in emergency situations.

Realizing that the students in Medicine are probably under more stress than students in other programmes, we also actively seek out potentially students in need:

a. Posters are put up to encourage students in need to seek help (see Appendix K-2)

b. All students requiring sick leave of more than 2 weeks are referred to Associate Dean (Education)

c. All Year Co-ordinators are expected to pay special attention and offer counseling whenever necessary to repeaters and weaker students in the respective year. The students’ name is made available to them at the beginning of the year

d. Special accommodation to occasional students, e.g., a handicapped student

In an attempt to promote greater understanding between the three groups of health care students at the Faculty (Medicine, Pharmacy and Nursing), extra-curricular activities are organized from time to time. For example, there is an annual Outreach Programme to Shantou University (see Appendix K-3) and there was also a recent visit to Zhongshan University Medical School in Guangzhou involving students of all three programmes.
While the Faculty believes we have made the best effort in providing a good medical curriculum, we are acutely cognizant of our restrictions. These must be kept in mind when considering curriculum changes or comparing the Medicine programme with other programmes at the University.

1. Examination remains the mainstay of assessment. This possibly cannot be changed because:
   
a. A requirement by our main stakeholder, Hong Kong Medical Council, that our examination questions be used in the Licentiate Examination of the Medical Council. The Associate Dean (Education) happens to be also the serving Chairman of the Licentiate Examination so he is well aware of the demands of this examination. Currently, half of the questions used must be from our own undergraduate question banks. Please note that the Licentiate Examination of the Hong Kong Medical Council is a highly legalistic test. Its format and conduct are written into the statutes of Hong Kong and there are formal legal procedures for appeal and exemption.
   
b. Medical education worldwide is examination-dominated. Most medical schools in the world conduct practically all their assessments by examinations.

2. Our graduates are given medical licensures after one year of internship without further examination. This is the traditional UK and Australian practice and maintaining standard is heavily dependent on peer review, e.g. External Examinership.

This is in contrast to other countries, e.g. USA, Canada, China, where medical graduates have to sit a separate licensing examination after graduation before licensure. It is not within the remit of this document to argue for the pros and cons of the two different systems. But the current arrangement means that, in fact, our own examinations ARE the ipso facto licensing examination. The Faculty in that sense owes a tremendous responsibility to the society that our graduates are vigorously trained and tested in terms of knowledge and skills and have the professional attributes of a safe and good doctor. This is always at the back of our mind when we contemplate curricular and pedagogic changes.

3. All of our graduates become doctors and practise medicine after graduation. We are not aware of any graduate who did not in recent years (see Appendix L-1 for Employment Statistics of MBChB Graduates from 2001 to 2006). This is in contrast to other programmes of the University. For example, only a proportion of Biology graduates become practicing biologists eventually. There is a big need, for the sake of discussion, to develop other generic attributes for careers in fields other than Biology in these students. We do not dispute the desirability of these generic attributes but Medicine has to take care of training of the professional attributes first and foremost.

All of our graduates become interns of the Hospital Authority and about 90% will become Residents (junior doctors) of the Hospital Authority after internship.
4. All medical schools in the world have a large number of teachers and "part-time" teachers and we are no exception. As mentioned in Section A, currently 235 full time teachers and 2730 part-time teachers deliver the Medical curriculum. As one can imagine, with such a large, geographically separated and occasionally independent-minded group of highly trained professionals, obtaining consensus and communicating clearly are no mean feat and they take up considerable time and effort. This is also in contrast to other programmes at the University where the entire programme is delivered by a small group of teachers. But we are not the only medical school in the world which has this problem. Medical education almost by definition involves a lot of people.

While one can argue that the Medicine programme can be taught in its entirety by a much smaller group of teachers, and this should produce more coherence and uniformity, exposing the students to a larger group of teachers introduces them better to the “real situations” in medicine (where there are often more than one doctor and one patient) and that will be beneficial to them in the long term.

5. We are probably less free to make radical changes in our curriculum than other programmes, because of the interests of the stakeholders and also society expectations. As we all know, the Hong Kong public and media have a lot of interest and expectation of medicine and by inference, our medical education too. For example, several years ago, there were a few mistakes committed by interns over blood transfusion and the Faculty would immediately get a question from the Hospital Authority or media, whether we had taught and examined blood transfusion in the curriculum.

Perhaps more than education in the other disciplines, medical education is already a full fledged specialty in itself, with specialist books, journals, and conferences. These bodies of literature and opinions also influence heavily how we plan our curriculum, for example, how "Tomorrow's Doctors" and "Scottish Doctors" documents have affected our curriculum and our learning outcome development.

Also, although only few doctors in Hong Kong emigrate currently, many of our graduates will eventually spend sabbatical training in overseas institutions in their careers and sometimes, for example in USA, obtaining a basic license to train is a requirement. This is another reason why we have to pay attention to what is happening in medical education worldwide, too.

6. Teachers (professors) in the Faculty who are medically qualified (about 50%) have a dual role of a university teacher (teaching and research) and active practitioners. There is a gentleman’s agreement between the Hong Kong government and the University over the years that university clinical teachers contribute 60% of their time to hospital service. In fact, most of them have clinical responsibilities more or less the same as their hospital-employed counterparts. For example, the Associate Dean (Education) is also the Chief of Service of pathology at the teaching hospital. Interestingly, even in the Faculty of Medicine, only the Medicine programme has this arrangement. Teachers in Pharmacy and Nursing have no service obligations to the health services.
Therefore, the degree of involvement in the practice of their profession is probably much higher than teachers in the other “professional” programmes of the University. There are pros and cons of this mode of operation (the same arrangement is found in most other medical schools in the world). On one hand, teachers can convey to the students a lot of practical experience or “wisdom” and are often leaders in the practice of their specialties. The situation sometimes found in the other “professional” programmes that “the teachers do not actually practice the profession actively” never occurs in Medicine. On the other hand, it does mean that medical teachers often have much less time for teaching and teaching matters than teachers in other programmes due to heavy clinical responsibilities.

7. We probably have a more heterogeneous group of students than other programmes at the University. In the recent three to four years, the distribution of our first-year intake has been 33% JUPAS, 33% EAS and 33% non-JUPAS. Of the latter, while the majority of them are either school leavers in UK or international schools in Hong Kong, or junior students at overseas universities, each year, there are 10-12 students with a degree already, occasionally to PhD level. We do not have a separate postgraduate curriculum (we would not believe UGC will allow this) so to teach a group with a somewhat mixed background poses a certain challenge. On the other hand, this gives more diversity to the student population, which in itself is good educational experience for all.

Naturally, to write Future Action Plans in this document will pre-empt the opinions of the Review Panel of this exercise and also, as mentioned, we are still waiting for the formal report of the 2008 Accreditation Review of the Hong Kong Medical Council. Nonetheless, the following are in the pipeline:

a. We expect a lot of our attention will have to focus on arrangement for 2012. Other than what the University is concerned over student learning outcomes for 2012 and faculty packages, we have perhaps other more difficult tasks too:

- The logistics of teaching of two first year classes of medicine together in 2012. We can see problems in teaching venues and teachers.

- Due to the inter-professional nature of the first year “packages”, the class will be enormous.

- There should be more than 820 new entrants into the Faculty (2 classes each of medicine, nursing, pharmacy and public health) in 2012.

- The re-location of the basic medical sciences departments to Lot No. 39 and the refurbishment of the existing departmental facilities into teaching venues for 2012.

b. As described in Section E and appendix, we will be developing and refining the student outcomes to take into account the broader education objectives UGC set for the universities in 2012. We expect there would need to be negotiations with the University who would like to see the newly introduced General Education courses to be spread out over the entire curriculum against our wish to restrict them to mostly our new first year in 2012.
c. It was agreed in the last Curriculum Retreat that there should be more inter-professional interactions among the students of medicine, pharmacy, nursing and public health. We will be developing non-core and “informal” curricula on this aspect and more formal inter-professional curriculum for 2012.

d. We will be conducting a benchmarking exercise with the Hong Kong Medical Council in September comparing the performance of CUHK students and licentiate examination candidates with the same items.

e. We will be looking into further strengthening the professional and personal developmental aspects of our training and take into account the curricula of medical schools in China and Taiwan into the workshop we have just held in April.

f. We will be working with the Hospital Authority to better define the “duties” for medical students that are desirable or allowable in the wards. Right now, they are not well defined (nor are they in other medical schools) and there is a need to do so especially when students double up as “Assistant Interns” (when the interns are on leave). Naturally, the medico-legal side of such a refinement also needs to be taken into.

h. We feel that there is a need for the degree holders of our student population, numbering 55-60 in five years to receive special support and counseling whenever they need. To that end, we will introduce a special “tutor” for them similar to the EAS Adviser.