Professional Accreditation Handbook (Engineering Degrees)

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1. PROFESSIONAL ACCREDITATION

1.1 Introduction

The Hong Kong Institution of Engineers (the HKIE) is the professional engineering learned society and qualifying body for Hong Kong and as such has a responsibility for setting and maintaining the professional and technical standards of its members. To this end, it evaluates the qualifications for admission to grades of Institution membership.

The academic qualification for Corporate Membership of the HKIE is an accredited engineering degree at the honours level. The HKIE's process of accrediting such programmes is called professional accreditation. (A description of professional accreditation is provided in the Appendix.) This handbook sets out the HKIE's processes, mechanisms and criteria for the professional accreditation of engineering degree programmes.

The Institution would like to emphasise that accreditation is a collaborative activity between the profession and the academic institutions. Such collaboration is helped by the majority of the academics delivering engineering degree programmes being professional engineers, and that the undergraduates normally aim to become professional engineers. In addition, a significant proportion of the academics from the engineering departments and faculties of Hong Kong universities participate in the activities of the HKIE. Consequently, they play a significant role in the Institution's accreditation exercises.

The HKIE does not view the accreditation of engineering degree programmes as discrete and limited exercises, but as part of a process to work with the universities on a continuous basis, to provide help, advice and support, to ensure that the quality of engineering degree programmes is high and meets the needs of professional engineers, their employers and Hong Kong society in general.

The HKIE takes very seriously its responsibilities with regard to the Washington Accord and to fostering, maintaining and developing bilateral and international agreements for the mutual recognition of qualifications. This is undertaken through links with a number of international engineering initiatives which have been established to harmonise qualifications and to recognise accreditation methods and standards; the Washington Accord, Federation of Engineering Institutions of South East Asia and the Pacific (FEISEAP) and European Federation of National Engineering Associations (FEANI) are examples.

1.2 Accreditation by Faculty

Essentially, the HKIE is concerned with the standards and quality of individual engineering degree programmes. Consequently, it is the individual programme which receives accreditation. However, the process of professional accreditation also considers the appropriate Faculty in terms of its overall philosophy, objectives and resources. This has the advantage of taking into account the broad principles and policies of the development of engineering education in a university.

Furthermore, consideration of a range of programmes has particular advantages in relation to modular programmes and ones containing a number of elective courses.

Although visits will normally be by Faculty, there may be visits to individual departments within a Faculty for the purposes of provisional accreditation, to consider major modifications to a programme or to monitor a programme which had been granted accreditation for less than the normal five years.

1.3 Initiation of Accreditation Exercises

The professional accreditation of engineering degree programmes in the universities is normally initiated by a university issuing an invitation to the HKIE's Accreditation Board to carry out appropriate accreditation exercises.

1.4 Consultation and Accreditation Visits

As mentioned in the introduction, the HKIE sees accreditation exercises as a continuous activity. Accordingly, any university planning new engineering degree programmes, or restructuring existing ones, is encouraged to consult the HKIE in order to ensure that the engineering degree programmes are developed such that the requirements of all concerned are fully addressed.

1.5 Provisional and Full Accreditation

The HKIE undertakes provisional accreditation exercises to consider programmes which have yet to produce the first cohort of graduates, and, full accreditation exercises for the consideration of existing programmes, whether they have been previously accredited or not.

1.6 Accreditation Decisions and the Accreditation Cycle

The HKIE can reach four accreditation decisions as follows:

a. the programme be granted provisional accreditation with or without conditions; or

b. the programme be fully accredited for a term of up to five years with or without conditions; or

c. the programme not be granted accreditation; or

d. the accreditation of the programme be revoked.

1.6.1 Provisional Accreditation

Provisional accreditation may be granted to developing programmes with or without conditions, and generally the relevant accreditation exercises will be completed during the second-half of the programme of the first cohort of graduates. Provisional accreditation provides an indication to both the university and prospective students that the programme is well structured and has very good possibilities of receiving full accreditation but should not be construed as a commitment to the granting of full accreditation.

1.6.2 Accreditation for a Period of up to Five Years

The HKIE may grant full accreditation for the normal cycle of accreditation of five years. Alternatively, the HKIE may grant full accreditation for a term of less than five years, either to bring it in line with the accreditation cycle of other programmes or to monitor a programme early in relation to any conditions, requirements and/or concerns which may have emerged during the accreditation process.

For a newly developed programme, a full accreditation exercise is mounted, at a time agreed with the university, after the first cohort of graduates. Full accreditation, if granted, will be retrospective so as to apply to the first cohort of graduates.

1.6.3 Accreditation Refused or Withdrawn

If a programme is substantially at variance with the HKIE criteria (see section 2), then the accreditation can be refused or withdrawn.

1.6.4 Revocation of Accreditation

If a university fails to meet conditions imposed on a programme by the previous accreditation or if it has introduced changes which make the programme seriously at variance with the HKIE criteria, then the accreditation can be terminated.

1.7 The Accreditation Panel

The HKIE has an Accreditation Panel (not to be confused with visiting teams) which is a group of appropriately qualified senior members, selected by the HKIE's Accreditation Board, to participate in professional accreditation exercises, on behalf of the HKIE.

In addition, professional engineers from overseas, with appropriate expertise are invited by the Accreditation Board to be included on the Panel.

1.8   Visiting Teams

Visiting teams shall be selected from the Panel for each particular accreditation exercise. The Dean or Head of Department shall be informed of the names of the proposed chairman and members of a team, and objection to a team member may be made if there is a conflict of interest. (Team members are selected on the basis that they have no professional or any other association with the university, nor members of their family attending it.)

1.8.1   Team Size and Constitution

For a single discipline exercise, the team shall normally comprise four members including the chairman.   All members shall be experienced in the discipline, or associated with it.   For exercises involving two or more programmes, which may cover several engineering disciplines, there shall be at least two members from, or associated with, each of the disciplines.

For each accreditation exercise, the Accreditation Board will also appoint one of its members, who can join the accreditation visit as an observer, to act as an assessor.

The accreditation visiting team shall have a good mix of academics and practising professional engineers.   Whenever possible, members of the Accreditation Board shall be invited to participate in the visits. In addition, the HKIE secretariat staff shall accompany the visiting team.

In general, to ensure continuity and expertise, team chairmen shall have considerable previous experience of professional accreditation, and, most members of the team will be expected to have knowledge and experience of professional accreditation.

1.9   Accreditation Visits

Accreditation visits are an important part of an accreditation exercise. They enable the HKIE to assess, at first hand, qualitative factors, such as facilities, intellectual environment, morale, professional attitudes and the quality of staff and students.

For programmes which are being planned by a university, the HKIE will arrange consultation visits by experts as appropriate in each case.   On such visits, the experts shall only comment and advise on the proposed programmes and shall not commit the HKIE to granting accreditation to a programme.

It should be noted that the accreditation visits are only a part of the full accreditation exercises. There is considerable preparation prior to a visit and many post visit activities.

A visit will normally take one and a half days and shall include:

-    meetings of the team with the appropriate senior university staff;

- meetings with the programme leader and other academic staff;
- meetings with the students and support staff;
- visit to the departmental facilities, including lecture theatres, laboratories, library and computing facilities;
- review of examination papers, laboratory instructions and reports, project reports and other material demonstrating student performance;
- private meetings of the team; and
- an exit meeting with the Dean and senior staff to convey the team's initial observations.

1.10   Accreditation Reports

Based on a consensus of opinion, ascertained at the end of a visit, the team chairman, with the assistance of the HKIE secretariat, shall draft a formal report based on the observations of the team, and assess whether the programme conforms to the HKIE Accreditation Criteria.

Notes: The following procedures have been adopted formally by the Accreditation Board in dealing with the Accreditation Report.

(i)   The visiting team chairman will draft the report with the assistance of members of the team and the HKIE staff.
(ii)   The draft report will be sent to the visiting team members for comment.
(iii)   The comments made by the members of the visiting team will be considered by the chairman.
(iv)   The draft report will then become the final report.
(v)   The final report will be sent to the Dean and relevant Heads of Departments for comment.
(vi)   The comments made by the Dean and Heads will be sent to the visiting team chairman and the assessor.
(vii)   The final report, and the comments made by the Dean and Heads will go to the Accreditation Board at the decision meeting.

The report, in the first instance, shall be discussed with the Dean or Head of Department to ensure that there is no error of fact or omission. The draft, corrected if necessary, shall then be circulated to the team members for comment.

A copy of the final report shall be sent, by the HKIE secretariat, to the university for information. The university may make a formal response if it so desires.

The HKIE maintains strict confidentiality regarding accreditation matters. It is for the university to decide how information related to this accreditation should be released and may inform HKIE accordingly.

1.11   Accreditation Decisions

In advance of the accreditation visit, the Accreditation Board will appoint one of its

members, who can join the visit as an observer, to act as an assessor. The assessor will study all the documentation and, in consultation with the visiting team chairman, make recommendations to the Board for an accreditation decision. The Chairman of the Board will initiate the discussion on the programme under consideration.

The accreditation report and university responses, and all other relevant information and correspondence will be passed to the Board for a decision.

The representatives of the university concerned, usually the Dean and/or Head of Department may attend that part of Board meeting devoted to the presentation of the report. Members of the visiting team may also be present.

At the meeting, the visiting team chairman will present the report and representatives of the university may put forward further information and answer questions of fact. The Board will then conduct a private meeting from which University representatives are excused. The assessor will present recommendations. The Board may then make decisions on the programme.

The Secretary to the Board will write to inform the university of the decision with a copy of the final report, in confidence, to the university Vice Chancellor/President/Director, copied to the relevant Dean and Head of Department.

1.12 Costs

Any university having its engineering programmes remaining on the HKIE list of accredited degrees shall pay in April of each year a fee to the HKIE. The fee will be based on the number of undergraduate engineering degree programmes agreed by the concerned parties.

The direct costs of each accreditation exercise (travel, subsistence, accommodation) will be paid by the university concerned.

1.13 Confidentiality

All documents and other information obtained by the Accreditation Board during the course of an exercise are kept confidential.

1.14 Appeal Procedures

In the event of a decision by the Accreditation Board to refuse or terminate accreditation of an engineering degree programme, the university concerned has the right to appeal to the President of the Institution to review the decision.

1.15   Publication

A full list of accredited programmes and their period of accreditation is published on the HKIE web-site.

2. CRITERIA FOR THE ACCREDITATION OF ENGINEERING DEGREE PROGRAMMES

2.1 Introduction

The HKIE undertakes professional accreditation to evaluate the standard and quality of engineering degree programmes. In doing so it takes into account a number of factors about the programmes and the universities which offer them. The quality of an engineering degree programme depends on more than just the curriculum and syllabus. The calibre of the academic staff, the entry standards, staffing levels, teaching methods, facilities, funding and method of assessment are just some of the factors which influence the quality of the educational experience.

The following describes broad criteria which are used by the HKIE regarding appropriate engineering degree programmes for the profession. In setting them out, the HKIE considers it important, both in the context of educational and professional objectives, for universities to encourage an environment which can accommodate innovative educational developments and to allow for the expression of the university's individual strengths, qualities and ideals.

2.2 Standards

In undertaking accreditation, the HKIE takes note that engineering degree programmes meet internationally recognised standards for the engineering profession.

2.3 Aims and Objectives

In its submission for accreditation of an engineering degree programme, a university should be able to express the aims, objectives and ethos of the programme both in relation to the appropriate standards of degree level education and the requirements of the profession. The university should demonstrate how its programmes meet the aims and objectives, and how they can respond to future developments.

The HKIE appreciates that engineering degree programmes are dynamic entities which must evolve with technology and the changing needs of the profession and society. Consequently, the HKIE expects a university to be able to articulate such developments in terms of how the structure and rationale of its programmes can respond to change.

2.4 Duration

The HKIE believes that engineering degree programmes should have a minimum duration of three years full-time equivalent, of which a one-year full-time equivalent consists normally of about 26 weeks of classroom, laboratory, workshop and related activities. (Time allocated to assessment, field work and practical training fall outside these 26 weeks.)

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The criteria set out here provide broad guidance for a three-year full-time equivalent programme. It is accepted that a longer programme than this will enable an academic institution to introduce subjects and activities which could contribute further to the education of an engineering undergraduate, but the onus is on the university to demonstrate that the programme contains at least the equivalent of the three years which meets the HKIE's requirements.

2.5 Part-time Engineering Degree Programme

If a part-time engineering degree programme is offered, or if a student undertakes a programme on a part-time basis, all requirements of an accredited programme must be met.

2.6 Syllabus and Curriculum

The HKIE does not wish to impose uniformity on universities in relation to curricula and syllabuses, but encourages them to develop courses, making the best use of resources, responding to academic and technological change, and recognising the needs of the students, community and profession. Nevertheless, the HKIE does require course content to be sufficient to enable undergraduates to acquire, within the duration of a programme, the basic knowledge, understanding and skills necessary to enable them to practise in an effective and professional manner as a graduate engineer. Course sequences in the curriculum must provide for breadth and depth appropriate to the discipline, and the University must demonstrate that prerequisites are followed.

The HKIE accepts that over the whole range of the engineering disciplines it is not possible to state precisely the essential characteristics and content of courses and programmes. However, the Institution expects the curricula for engineering degree programmes to have three main emphases, namely, engineering subjects, mathematics and complementary support subjects, as follows:

2.6.1 Engineering Subjects

a. Engineering Sciences

Engineering sciences have their roots in mathematics, physics and other basic sciences, but carry knowledge further towards creative application. They may include such subjects as mechanics of solids, fluid mechanics, thermodynamics, electrical and electronic circuits, computer science, materials science, soil mechanics, aerodynamics, control systems, transport, and so on depending on the discipline.

In an engineering degree programme, the HKIE expects a university to provide engineering courses for the appropriate discipline supported by others which provide an appreciation of related disciplines in a coherent and organised manner.

b. Engineering Design and Synthesis

The HKIE believes the importance of design and synthesis is such that a separate appropriate topic should be established. However, it is accepted that because of the applied nature of this activity to almost every engineering endeavour it could be best delivered within the engineering science courses in a programme. Its establishment as a separate topic can be used to demonstrate that it is a creative, iterative and often open-ended process and to also enable discussion of general design techniques and philosophy, as well as financial, quality, safety and environmental implications.

c. Laboratory and Field Work

Courses should be supported by meaningful laboratory work, well co-ordinated with the lecture material and supported with relevant up-to-date equipment. If a university utilises laboratories at different locations or uses different delivery formats, they must provide evidence to show that every student receives a laboratory experience that is meaningful, well co-ordinated, and up-to-date.

Residential field courses in subjects such as surveying and geology are considered important where these subjects are an integral part of the programme.

d. Computing and Information Technology (IT)

Computing and IT is considered an essential part of the engineering education experience. All engineering graduates should be computer/IT literate, and have acquired the relevant skills specific to the branch of engineering studies. Students should be given an understanding of the processes involved and the limitations of software.

e. Project

The HKIE believes that project work is an important means of introducing engineering approach to solution of problems. For this reason, the extensive use of projects is expected in every engineering degree programme. Normally, the final year of the programme should include an intellectually challenging project which is individually assessed. The project should involve design, synthesis, application and/or creativity. The assessment of the project should have a significant weighting in the degree classification.

The HKIE recognises that group or team problem solving is an important component of modern engineering practice. For this reason, the programme should contain at least one group problem solving exercise.

Within an engineering degree programme, engineering subjects should be

around 60% of the curriculum.

2.6.2 Mathematics

The HKIE considers that the mathematics content of degrees should underpin the engineering subjects, and should emphasise mathematical concepts, and principles, numerical analyses and applications and their relationship to the modelling of engineering systems. It is accepted that these can be delivered as separate topics, however, the HKIE believes that it is also desirable for mathematics to be delivered within the context of its application in engineering situations and be within the engineering subjects of the programme.

The HKIE does not believe that course work devoted to skills in the use of computers or computer programming satisfies the mathematics requirement of a degree. Nevertheless, many other subjects taught in an engineering degree programme may well contribute to the fulfilment of the mathematics requirements.

Within an engineering degree programme, it is believed that the mathematics content should be around 16% (1/6) of the curriculum.

2.6.3 Complementary Studies

Studies which provide an appreciation of those wider issues which enable engineers to practise professionally in society should be fully integrated within the programme. Such studies may include management, economics, law, history, finance or a foreign language. Furthermore, the following elements should be included in the curriculum.

a. Practical Training

The HKIE recognises the benefits of practical experience obtained during an engineering degree programme and recommends that students aggregate significant, relevant practical training or employment. This will normally be obtained during vacations or in a "sandwich" year, and universities should encourage this activity.

b. Health, Safety and the Environment

The programme should demonstrate the importance of health, safety and environmental considerations to both workers and the general public.

c. Communications

The HKIE cannot over emphasise the need for professional engineers to have good communication skills. Engineering degree programmes should contain instruction in both oral and written communication skills as well as presentation skills.

d. The Professional Engineer

It is considered that students should be introduced to the role of the professional engineer in practice and their responsibilities towards the profession, colleagues, employers, clients and the public, particularly with reference to the impact of technology on society and with regard to ethical behaviour. Furthermore, they should be made aware of the role of the engineering institutions and matters of professional practice such as licensing and registration.

They should also be encouraged to become student members of the HKIE and to take part in its activities.

Within an engineering degree programme, it is believed that the complementary subjects, excluding practical training, should be around 20% of the curriculum.

2.7 Academic Staff

An important factor in determining the standard of an engineering degree programme is the quality and commitment of the teaching staff. A significant proportion of the academic staff responsible for delivering an engineering degree programme should be able to demonstrate academic attainment and achievement in engineering practice. In addition, their professional standing as academics and, where relevant, as professional engineers should be demonstrable.

A high proportion of the staff should have postgraduate degrees by research, and they should be involved in appropriate scholarly activity. It is expected that most should possess qualifications and experience which would enable them to become Corporate Members of the HKIE, or are judged equivalent to that standard.

The required number of academic staff depends upon a number of factors:

- the number of courses, together with their content and duration;
- the number of undergraduate and postgraduate students;
- the expertise required to teach the range of courses provided;
- the provision of small tutorial and design groups;
- the method of programme delivery (on campus classes or by distance education or other educational delivery system).

The majority of staff should be full-time employees of the university, although it is accepted that a certain number of practising professionals from industry, employed on a part-time basis can make a special contribution to the delivery of courses. Consequently it is recommended that local practising engineers be invited to take part in the education of the students through formal and informal lectures, involvement in design projects and/or acting as industrial tutors.

The student/staff ratio should be sufficient for the appropriate delivery of programmes and at no time should a programme become critically dependent on one individual.

As engineering degree programmes also require input from other teaching staff, it is considered that the quality of such staff should be commensurate with that of the academic staff in engineering degree programmes.

2.8   Resources

Engineering degree programmes rely on the satisfactory provision of technical and administrative staff, administration, laboratories, information services, computing facilities, finance and other resources as follows:

2.8.1   Support Staff

There should be sufficient number of technical and workshop staff with adequate qualifications and experience to ensure the smooth and safe management of laboratories, maintenance of equipment and to provide general support.

There should also be sufficient number of administrative and secretariat staff to support the academic staff.

2.8.2   Accommodation and Equipment

There must be adequate provision of lecture rooms, laboratories, workshops, drawing offices and private study areas to support the programme of lectures, tutorials and practical classes. Laboratories should be well equipped with adequate and modern equipment and should provide a safe working environment for the students.

2.8.3   Computing Facilities

Computing facilities should be consistent with the aim of using computers as part of the engineering education experience. These facilities must be appropriate for laboratory work and engineering applications such as modelling and simulation and computer aided design.

Students should have easy and adequate access to such facilities.

2.8.4   Information Services

The university should provide adequate resources for information services which include conventional and up-to-date methods and facilities for example, books, journals, tapes, films, disks and databases, and the Internet.

Conventional library facilities should provide a range and variety of

technical and non-technical books, and a comprehensive range of journals covering all engineering disciplines. The inter-library loan system should be available to all students, together with abstract and literature search facilities for project work. Students should have easy and adequate access to these facilities.

2.8.5 Financial Resources

There should be adequate financial resources to ensure the smooth operation of the department, the provision and maintenance of laboratories, computers, libraries and other support facilities as well as for the development of the staff, programmes, courses and the upgrading of equipment.

2.9 Assessment

The quality of teaching and students' performance as measured by course work, laboratory work, design studies, projects, formal examinations and other forms of assessment should demonstrate the effectiveness of the learning process.

The HKIE believes that there should be an effective internal quality assurance system which is essential to maintain the academic standards of programmes. In addition, there should be an independent quality assurance system such as an external examiner system or equivalent.

2.10 Entry Levels

The HKIE does not prescribe minimum qualifications for entry to engineering degree programmes, but it does expect that the selection criteria are consistent with the majority of students being able to complete the programme at the expected standard. While a broadening of subjects studied prior to a degree can be beneficial, for entry to engineering degree programmes, the HKIE considers it crucial that most students demonstrate competence in the subjects of Mathematics, Physics or Engineering Science at the Hong Kong A-level Examination standards or equivalent.

Engineering degree programmes should attract a high proportion of the most able students, but this should not preclude a university from selecting well-motivated students with unusual qualifications, using careful and appropriate selection procedures.

Selection procedures which are not standard must be justified by the university.

2.11 Development

The HKIE believes it is incumbent on an academic institution to be sensitive to the requirements of society and the profession, and consequently, to develop programmes to respond to local and international requirements and to provide opportunities for staff to be

able to develop their skills so that they can deliver programmes meeting local and international professional and academic standards. In order to do this, the HKIE believes that universities have a responsibility to liaise with the engineering profession and industry in relation to engineering degree programmes and their development.

2.12 Programme Amendments

It is expected that from time to time there will be evolutionary changes to a programme within the period of its accreditation. Any modification to a programme should maintain the spirit of the programme as accredited and may include such changes as:
- a change in the title of the programme;
- a change in the length of the programme;
- the addition of options and/or streams;
- the deletion of some subjects;
- a significant change in the provision of resources for the programme.

The university should inform the HKIE of the above and other major curriculum or operational changes. The Board may then consider any subsequent actions including initiation of a visit or request of a written report.

3.   ACCREDITATION SUBMISSIONS

When preparing a submission for professional accreditation, the university is advised to consider the criteria in section 2 carefully, and to consult the HKIE as appropriate.

3.1   Provisional or Full Accreditation

The following information and details which are requested relate both to provisional and full accreditation submissions. However, 'historical' information is obviously not relevant to provisional accreditation.

For the provisional accreditation of developing programmes the exercises should commence at least six months before the first cohort of graduates has reached the half way stage of the programme, at which time a university should provide the preliminary details (section 3.2).

For the full accreditation of existing programmes, a university should submit the preliminary details no later than six months before the expiry of the current approval.

For the full accreditation of developing programmes the exercises may commence at a date, mutually acceptable to the HKIE and the university, after the first cohort of graduates have emerged. The preliminary details should be submitted no later than six months before the visit.

In both cases, the full information requested (section 3.3) should be submitted at least six weeks before the date of any visit. If as a result of considering the submission further information is required, the chairman of the HKIE's Accreditation Board, in consultation with the chairman of the visiting team and the university may arrange to delay the timing of any visit or, in exceptional circumstances the cancellation of the exercises.

3.2   Preliminary Details

A university seeking accreditation of a programme is required to submit the following introductory information:

1.   title of the Faculty or Department;

2.   Dean, Head of Department, names, qualifications and date of appointments;

3.   title of the programme;

4.   name of programme leader;

5.   accreditation sought (provisional or full);

6.   brief resume, 100 words maximum, about the programme submitted;

7.   provisional dates for the visit.

3.3   Full Information

The following details and documents are to be provided at least six weeks before the date of a visit:

1.   if relevant, changes made to the programme since any last visit. (If accredited by another professional body, the HKIE should have an opportunity of receiving the appropriate reports);

2.   details of self validation procedures;

3.   details of administrative and authoritative structure of the university and Faculty, indicating who holds ultimate responsibility for the programme;

4.   the programme philosophy;

5.   duration of programme in full-time equivalent and actual years, and in weeks per annum;

6.   allocation of students' weekly work load in hours between lectures, tutorials, laboratory, project, etc, for each year of the programme;

7.   details of the curriculum listing each course and subject and giving for each subject the time-tabled hours per week for lectures, tutorials, and practical work, the total hours per week and per year. These details should be given for each year of the programme;

8.   details of the programme including the following:

    a.   syllabuses;

    b.   objectives of each individual course;

    c.   hours allocated to each topic listed in the content;

    d.   practical experiments, drawings, fieldwork, or other practical work in relation to the syllabus;

    e.   lists of essential and reference text-books;

9.   details of the student admission procedures including the following:

    a.   minimum entry requirements (including examples of advanced standing, if any);

    b.   selection criteria;

    c.   number of students admitted to the programme year by year;

    d.   entry qualifications of students;

10.   details of assessment procedures for syllabuses and for the programme as a whole, including the assessment methods and attrition rate, plus the following:

    a.   the marks, credits or weighting for each subject and the percentage of these allocated to written examination, practical project, and continuous assessment elements of the total marks for the subject;

    b.   final examination results for the past five years, or since commencement, including the distribution of honours classifications;

    c.   number and duration of examinations and/or practical tests for terminal examinations in each subject;

    d.   the conditions which permit a candidate to advance from one stage to the next;

    e.   the basis on which candidates are permitted to repeat failed subjects and to carry exemptions in other passed subjects;

11.   details of external examination, or similar monitoring;

12.   details of the teaching and support staff, including the following:

    a.   academic staff with curriculum vitae for each member listing the name, position, qualifications, membership of professional bodies, experience, research and consultancy activity and list of publications;

    b.   technical, laboratory and other support staff with details of the names, qualifications and experience;

13.   details of lecture halls, laboratories, workshops, and other work areas available for the programme, listing the floor area, number of student places and equipment;

14.   information services and, in particular, library facilities;

15.   computer facilities available for the programme;

16.   graduate employment statistics;

17.   external professional contact by the staff and students;

18.   funding of the Department, for equipment and research;

19.   future plans, budgets and intentions for the programme;

20. evidence of practical training undertaken by the students;

21. process for ensuring continuing development of staff and programme;

22. other information which the Department or Faculty may wish to supply regarding the environment for the programme.

3.4   Information to be Available During the Visit

The following material is to be made available during the accreditation visit:

1. examination question papers, specimen solutions for the last three normal examinations in each course;

2. marked examination scripts for the most recent examination in each course. For large classes the selection supplied should be representative of the range of marks;

3. course material supplied to students: course outlines, tutorial sheets, laboratory experiment instruction sheets, prescribed texts, notes etc;

4. examples of final year design, laboratory and other projects representative of the range of topics covered and the markings.

NOMENCLATURE

Academic Accreditation
Any evaluation or assessment to determine whether the academic standards of an institution of higher education are comparable with internationally recognised standards. It includes course validation, course revalidation, institutional review and institutional accreditation.

Professional Accreditation
The evaluation and comparison of the academic standards of a degree or sub-degree and consideration of the appropriateness of the education component of that degree or sub-degree for professional practice.

The Accreditation Panel
Those Members of the Institution who are appointed to carry out professional accreditation visits on behalf of the HKIE.

The Accreditation Exercise
The full professional accreditation process.

The Accreditation Visit
A visit to an academic institution as an integral part of the professional accreditation exercise.

The Visiting Team
Members of the Accreditation Panel selected to carry out a specific accreditation exercise.

Programme
Refers to the complete curriculum of a degree, comprising courses/modules/credit units, assignments, workshops, projects and so on.

Course
Refers to a specific taught part of a degree programme (course is sometimes used to describe a whole degree programme, where that programme has a fixed curriculum). Courses are sometimes referred to as subjects, modules or credit units.